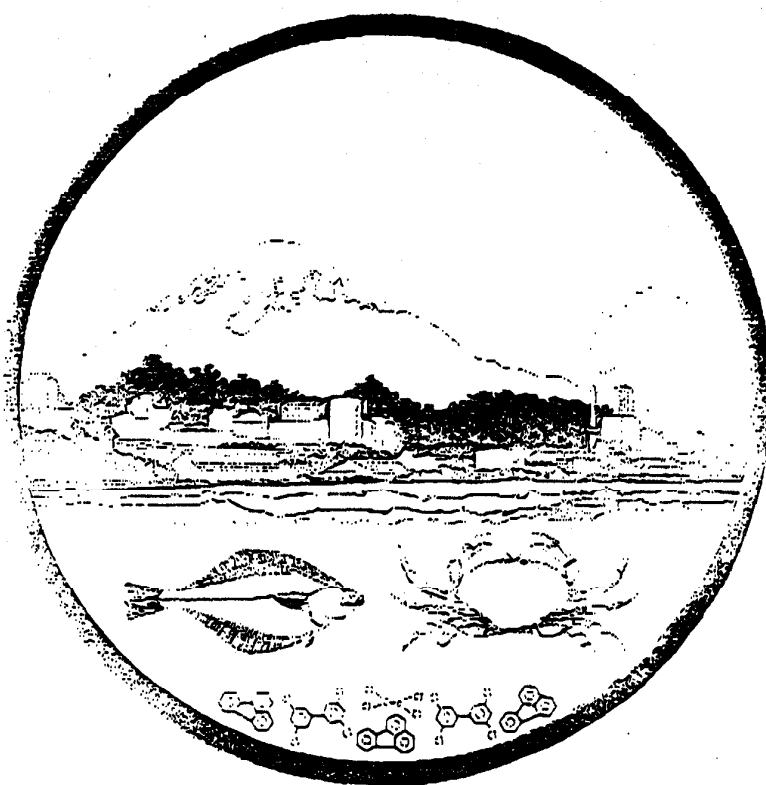


TC-3218
Public Review Draft

COMMENCEMENT BAY NEARSHORE/TIDEFLATS FEASIBILITY STUDY

Volume 1



DECEMBER 1988

PREPARED FOR:
WASHINGTON STATE DEPARTMENT OF ECOLOGY-
AND U.S. ENVIRONMENTAL PROTECTION AGENCY

TETRA TECH

5.2.1 Kaiser Aluminum

Site Background--

Kaiser Aluminum and Chemical Corporation operates an aluminum production plant on a 96-ac site near the head of Hylebos Waterway. Production capacity is approximately 80,000 ton/yr, roughly half of which is fabricated into aluminum rod at the plant. The facility was built in 1942 by the Defense Plant Department, and operated by Olin Inc. until 1946. Kaiser Aluminum acquired the property in 1946 and continued operations until 1958, when economic conditions led to cessation of production. Production resumed in 1964 and has continued to the present day.

In the early 1950s, Kaiser Aluminum installed a wet scrubber system to reduce air emissions. The system generated a wastewater containing aluminum, reduction cell bath materials, carbon, and condensed pitch volatiles (Hanneman 1984). Wastewater was discharged to a series of settling (sludge) ponds for removal of suspended solids. Clarified water was recycled or discharged. Generation of wet scrubber sludge ceased in 1974, when a dry scrubber system was installed. In 1983, analysis of wet scrubber sludge revealed HPAH concentrations of up to 5 percent (Stanley, R., 27 June 1983, personal communication; Landau Associates 1984). On the basis of HPAH content and results of bioassay tests, Ecology characterized the sludges as "extremely hazardous wastes in accordance with WAC 173-303." High concentrations of HPAH were also found in Kaiser Ditch (discharge 52 in Figure 5-6), which drained the sludge ponds. These results, in conjunction with the finding that waterway sediments near the Kaiser Ditch outfall contained elevated concentrations of HPAH, led to identification of Kaiser as a potential source of HPAH contamination to Hylebos Waterway (Tetra Tech 1985a).

Atmospheric emissions of PAH from Kaiser Aluminum were also identified as a possible source of contamination to Hylebos Waterway. These PAH could enter the waterway as direct deposition, or as runoff via Kaiser Ditch from areas receiving direct deposition (Tetra Tech 1985a). HPAH emissions from production pot rooms have been quantified and found to be significant (Nord, T.L., 1 November 1983, personal communication; Fenske, F., 25 April 1985, personal communication). However, a link between atmospheric HPAH emissions and increased concentrations of HPAH in Hylebos Waterway has not been established.

Contaminant Source Identification--

Approximately 65,000 yd³ (88,000 tons wet weight) of wet scrubber sludge deposits rest on the western side of the property. The sludge management area consists of three contiguous unlined surface impoundments covering approximately 11 ac. This area is the primary source of available HPAH on Kaiser Aluminum property. The potential for wet or dry deposition of HPAH from atmospheric emissions has not been evaluated.

In late 1986, a 3,000-gal spill of PCB-contaminated transformer oil occurred at the Kaiser Aluminum facility. PCBs in the oil were measured at

17 mg/kg. After the spill, contaminated soil was removed and disposed of at the Arlington, OR hazardous waste disposal facility. Groundwater in the vicinity of the spill was collected with the aid of trenches, and treated using an oil/water separator. This water was discharged to the City of Tacoma wastewater treatment plant under a temporary permit.

Recent and Planned Remedial Activities--

In April 1983, Ecology issued Kaiser Aluminum an order to determine the nature and extent of sludge deposits on plant property, and the nature and extent of sludge contamination in surface and groundwater. In 1984, Kaiser Aluminum installed silt curtains adjacent to the Kaiser Ditch to keep sludges out of the ditch. Also in 1984, 1,400 yd³ of soil contaminated with HPAH was removed from adjacent properties and consolidated on the Kaiser Aluminum site (Davies, D., 15 May 1988, personal communication). In June 1985, following completion of the characterization study, Ecology issued a new order requiring Kaiser Aluminum to undertake a groundwater monitoring and testing program, and establish a sludge management plan. The groundwater monitoring program (Landau Associates 1987) was completed and a plan for onsite management of the sludge was proposed. Conducted by Landau Associates (1987), the groundwater monitoring program included a hydrogeological characterization of the site and 2 yr of monitoring (eight quarterly sampling events between August 1985 and May 1987). Water samples collected from wells placed around the sludge deposits contained very low (<10 ug/kg) concentrations of total HPAH, indicating that subsurface migration of HPAH is negligible. However, the thin-layer chromatography analytical method used is considered to be only semi-quantitative. The proposed sludge management plan involves consolidating sludge from the three impoundments into one enclosure, capping it and monitoring the groundwater. The sludge management closure plan was submitted to Ecology in September 1987. Negotiation of a consent decree (under Chapter 70.105B RCW or the Model Toxics Control Act) between Ecology and Kaiser Aluminum for remediation of the wet scrubber sludge disposal area is scheduled to resume in early 1989.

Kaiser Aluminum has also installed a tide gate at the mouth of Kaiser Ditch and re-routed its NPDES-permitted discharge of process wastewater. The tide gate prevents the waterway from backing up into Kaiser Ditch and carrying away additional sediments. Process water, which had been channeled through the sludge ponds, is now routed to Blair Waterway. The NPDES permit requires monitoring for pH, fluoride, total suspended solids, oil and grease, and benzo(a)pyrene as an indicator of HPAH. No benzo(a)pyrene has been detected in the effluent (Fenske, F., 4 May 1988, personal communication).

Air emission monitoring for HPAH has been ongoing at the plant and Ecology is in the process of determining whether additional controls need to be implemented (Fenske, F., 28 September 1987, personal communication).



STATE OF
WASHINGTON

Dixy Lee Ray
Governor

POLLUTION CONTROL HEARINGS BOARD

Number 1 Sound Sound Center, Lacey, Washington 98503
Mail Stop 2711

206-753-0025

August 8, 1979

Mr. Jeffrey D. Goltz
Assistant Attorney General
Department of Ecology
St. Martin's College
Olympia, Washington 98504

Mr. Edward M. Lane
Johnson, Lane & Gallagher
P.O. Box 1315
Tacoma, Washington 98402

Gentlemen:

Re: PCHB No. 78-269
Kaiser Aluminum and Chemical Corporation v. Department of Ecology

Herewith are the Final Findings of Fact, Conclusions of Law and Order of the Pollution Control Hearings Board in the above-entitled matter as a result of the hearing held on June 1, 1979 and July 13, 1979.

This is a FINAL ORDER for purposes of appeal pursuant to WAC 371-08-200.

Yours very truly,

David Akana, Chairman

DA:co

cc: Lloyd Taylor
Department of Ecology
St. Martin's College
Olympia, Washington 98504

Kaiser Aluminum and Chemical Corporation
3400 Taylor Way
Tacoma, Washington 98421

I certify that I mailed a copy of this document to the persons and addresses listed thereon, postage prepaid, in a receptacle for United States mail at Lacey, Washington on August 8, 1979.

BEFORE THE
POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON

IN THE MATTER OF
KAISER ALUMINUM &
CHEMICAL CORP.

Appellant,

V.

STATE OF WASHINGTON,
DEPARTMENT OF ECOLOGY,

Respondent.

PCHB No. 78-269

FINAL FINDINGS OF FACT,
CONCLUSIONS OF LAW AND
ORDER

This matter, the appeal from a denial of a tax credit and exemption application No. 511-M-2, came before the Pollution Control Hearings Board, Chris Smith and David Akana (presiding) at a formal hearing in Tacoma on June 1, 1979 and in Lacey in July 13, 1979.

Appellant was represented by its attorney, Edward M. Lane; respondent was represented by Jeffrey D. Goltz, Assistant Attorney General.

Having heard the testimony, having examined the exhibits, and having considered the contentions of the parties, the Board makes these

DA/co

1 FINDINGS OF FACT

2 I

3 In 1974 Kaiser Aluminum and Chemical Corporation (hereinafter
4 "Kaiser") completed construction of a 10.7 million dollar air pollution
5 control facility in Tacoma which was approved by the Department of
6 Ecology (hereinafter "DOE") for air pollution control as well as tax
7 credit purposes. The facility included a dry scrubbing system to service
8 exhaust gases from all of Kaiser's aluminum potlines. After the
9 installation of the dry scrubbing system, DOE has not found it necessary
10 to require additional air pollution equipment at the Tacoma plant.

11 II

12 In the process of making aluminum, alumina is transported to
13 the potlines where it is added at varying times to a reduction cell.
14 There the alumina is melted in a chemical bath and siphoned off to
15 other locations. Emissions from the process are released, some of
16 which are gathered by a system of hoods and some of which escape to
17 the pot room work area. The captured emissions are taken to a dry
18 scrubber where clean alumina ore acts as a contact cleaning medium
19 for fluorine and hydrocarbons. The alumina, then referred to as
20 "reacted ore", is blended with clean ore before charging the pots.
21 Upon being reentered into the bath, the hydrocarbons volatilize rapidly,
22 resulting in some fine particulate matter escaping the cell hooding
23 system. The air in the workroom is degraded as is the outside air
24 when the gases pass through the roof vents on the pot rooms.

25
26 FINAL FINDINGS OF FACT,
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1 V

2 The proposed calciner will probably reduce the total particulate
3 emissions to the ambient air from the plant below present levels, and
4 in particular, reduce the emissions to the pot rooms.

5 VI

6 Any Conclusion of Law which should be deemed a Finding of Fact is
7 hereby adopted as such.

8 From these Findings, the Board comes to these

9 CONCLUSIONS OF LAW

10 I

11 In a tax credit and exemption matter, the burden of proof is borne
12 by the appealing party. Tax credit and exemption statutes are construed
13 strictly against the person seeking the exemption.

14 II

15 RCW 82.34.010(1) defines "facility" to include an "air pollution
16 control facility."

17 (1) "Facility" shall mean an "air pollution control
18 facility" or a "water pollution control facility" as herein
19 defined: (a) "Air pollution control facility" includes any
20 treatment works, control devices and disposal systems,
21 machinery, equipment, structures, property or any part or
22 accessories thereof, installed or acquired for the primary
23 purpose of reducing, controlling or disposing of industrial
24 waste which if released to the outdoor atmosphere could
25 cause air pollution... (emphasis added).

26 "Air pollution" is defined in RCW 70.94.030(2):

27 "Air pollution" is presence in the outdoor atmosphere
of one or more air contaminants in sufficient quantities
and of such characteristics and duration as is, or is

28 FINAL FINDINGS OF FACT,
29 CONCLUSIONS OF LAW AND
30 ORDER

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III

The plant, in its present configuration, has reduced its total daily suspended particulate emissions from about 24 pounds per ton of aluminum produced in 1974 to about 14 pounds per ton of aluminum produced in 1975 and thereafter. Particulate emissions from the roof vents above the potlines increased from 7 pounds per ton in 1973 to about 12.5 pounds per ton after 1974. Thus, although there is a total reduction in particulate emissions from the plant, there has been a net transfer of the emission load to the pot rooms and consequently to the roof vents. At the time it designed its air pollution equipment, Kaiser knew that emissions in the pot rooms would increase due to the addition of the dry scrubber, but did not anticipate that in fact such emissions would double in magnitude.

IV

Kaiser seeks to reduce the particulate level in the pot rooms by installing a roaster which will bake off some of the hydrocarbons on the reacted ore, and to receive DOE's approval of the equipment for certification for tax credit purposes. On September 29, 1978, appellant prepared a tax credit application describing a "calciner" and related equipment for DOE consideration. DOE denied the tax credit application because the proposed calciner and related equipment were not requirements of that agency. Kaiser appealed the denial to this board, contending that the dry scrubber system has aggravated air quality in the pot room, and that the roaster would not have been needed but for the dry scrubber system earlier installed pursuant to an order from DOE.

FINAL FINDINGS OF FACT,
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likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interfere with enjoyment of life and property.

"Air contaminants" include particulate matter. RCW 70.94.030(1).

DOE is authorized to adopt emission standards for the state.

RCW 70.94.331. DOE has adopted emission standards for appellant's industry. WAC 18-52-031. Emissions in excess of the allowable quantities and duration standards in such regulation are "air pollution"; emissions falling under such standards generally are not "air pollution." Kaiser currently meets the standards and is not causing "air pollution." Consequently its proposed calciner is not an "air pollution control facility" within the meaning of RCW 82.34.010(1)(a), and is not a qualified facility for approval by DOE. As such, DOE's decision should be affirmed.

III

Even assuming that the proposed calciner was a qualified facility, appellant cannot prevail.

The test for approving an application for a tax credit and exemption is set forth in RCW 82.34.030 and restated by DOE as follows:

The department shall approve any facility when:

(1) It was installed or intended to be installed for the primary purpose of pollution control, and;

(2) When it is operated or intended to be operated primarily for the purpose of pollution control, and;

(3) When it is suitable, reasonably adequate, and meets the intent and purposes of chapter 70.94 or 90.48 RCW.

WAC 173-24-080. Brought to issue by the terms of the DOE decision is

FINAL FINDINGS OF FACT,
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1 WAC 173-24-080(1). A subsequent section, WAC 173-24-090, further
2 elaborates on the meaning of such requirement. Subsection (1) thereof
3 requires that a facility be installed in response to a requirement of
4 the DOE which is contained in a permit, order or specifically applicable
5 regulation, and that the facility meets such requirement.

6 The second subsection requires that a facility be installed to meet
7 the requirements of generally applicable regulations, and that the facility
8 meets such standard.

9 The third subsection requires that a facility be installed to
10 achieve the best known, available and reasonable means of preventing and
11 controlling air pollution, and meets or exceeds all applicable
12 governmental requirements. A facility must meet one of the three
13 subsections.

14
15 1. WAC 173-24-090 provides:

16 "A facility will be considered to be installed or intended
17 to be installed for the primary purpose of pollution control when:

18 (1) It was installed or intended to be installed in
19 response to a requirement of the department or a regional
20 or local air pollution control authority contained in a
21 permit, order or regulation which applies to the particular
22 industry or commercial establishment in question, and such
23 facility meets the requirements of such permit, order or
24 regulation, or,

25 (2) It was installed or intended to be installed to meet
26 the requirements of generally applicable air or water pollution
27 control standards or regulations promulgated by federal, state,
or regional agencies, and does in fact meet or exceed all such
applicable standards, or,

(3) It was installed or intended to be installed to
achieve the best known, available, and reasonable means of
preventing and controlling air and water pollution and
meets or exceeds all federal, state, and regional requirements
applicable to the facility in question. [Order DE 70-7, § 173-
24-090, filed 8/4/71.]

26 FINAL FINDINGS OF FACT,
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1 At the present time, Kaiser is meeting all applicable requirements
2 and has not been directed by DOE to construct further air pollution
3 control facilities. Thus, Kaiser cannot qualify under WAC 173-24-090
4 (1 and 2). Further, Kaiser cannot qualify under any of the three
5 subsections because the statute requires that applications for tax
6 exemption and credit certificates for industrial and manufacturing
7 facilities be made within one year after the effective date of specific
8 requirements promulgated by DOE. RCW 82.34.010(5) See International
9 Paper Co. v. Department of Revenue, 92 Wn.2d 277 (1979). WAC 18-52-031 , 2

10
11 2. The reason for respondent's denial of the instant application
12 was that the proposed calciner was not a requirement imposed by Ch.
13 18-52 WAC. WAC 18-52-031 provides:

14 "Emission standards. (1) The emission of gaseous fluorides and
15 particulate fluorides from all sources within a primary aluminum
16 plant shall be restricted so that the ambient air and forage
17 standards for fluorides are not exceeded outside the property
18 controlled by the aluminum plant owner or operator (see chapter
19 18-48 WAC).

20 (2) The total emission of particulate matter to the
21 atmosphere from the reduction process (pot-lines) shall be
22 reduced to the lowest level consistent with the highest and
23 best practicable technology available to the primary aluminum
24 industry, but in no case shall the emission of solid particulate
25 exceed fifteen pounds per ton of aluminum produced on a daily
26 basis.

27 (3) Visible emissions from all sources in a primary
aluminum mill excluding uncombined water droplets shall not
exceed for more than three minutes in any one hour, 20
percent opacity.

(4) Each aluminum mill shall take reasonable precautions
to prevent fugitive particulate material from becoming air borne:

(a) When handling, transporting or storing particulate
material on the mill site.

(b) When constructing, altering, repairing, or demolishing
a building, its appurtenances or a road;

(c) From an untreated open area. [Order DE 76-24, §
18-52-031, filed 6/28/76.]

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1 effective in 1976, was not a newly imposed requirement to be met by
2 Kaiser at the time it submitted its application in 1978. Even if there
3 was such a requirement, appellant's application was not timely. RCW
4 82.34.010(5). Thus, the department's decision was correct, and should
5 be affirmed.

6 IV

7 Any Finding of Fact which should be deemed a Conclusion of Law
8 is hereby adopted as such.

9 From these Conclusions the Board enters this

10 ORDER

11 The action of the Department of Ecology disapproving tax credit
12 Application No. 511-M is affirmed.

13 DONE this 7th day of August, 1979.

14 POLLUTION CONTROL HEARINGS BOARD

15 David Akana

16 DAVID AKANA, Chairman

17 Chris Smith

18 CHRIS SMITH, Member

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26 FINAL FINDINGS OF FACT,
27 CONCLUSIONS OF LAW AND
ORDER



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

September 7, 2000

Mr. Steve Anderson
Works Manager
Kaiser Aluminum & Chemical Corporation
3400 Taylor Way
Tacoma WA 98421

Dear Mr. Anderson:

Enclosed is the 1999/2000 annual air inspection conducted by Ecology at Kaiser's Tacoma Works on May 3, 2000. Copies of photographs taken during this inspection are also enclosed. A follow-up inspection of the potrooms was conducted on May 19, 2000. The purpose of this unannounced inspection was to determine compliance with applicable air regulations, such as 'good operation and maintenance' (WAC 173-415-030(6)) and fugitive emissions (WAC 173-400-040(3), -040(8) and 173-415-030(4)).

Specifically, WAC 173-415-030(6) requires that:

At all times, including periods of abnormal operation and upset, owners and operators shall, to the extent practicable, maintain an affected facility, and operate and maintain air pollution control equipment associated with such facility in a manner consistent with good air pollution control practice.

The inspection report carries Ecology's observations and findings. Significant concerns include:

- (1) the high number of open pot doors on May 19;
- (2) the high number of bottom seals in need of replacement;
- (3) high number of damaged doors that negatively impact Kaiser's ability to collect the pots emissions;
- (4) the amount of alumina spilled on potroom floors and at the alumina-filling stations;
- (5) the visible emissions from the non-hazardous waste shed observed during two different site visits; and
- (6) the smoking skip of paste outside of Line 4.

Based on this inspection Ecology has the following questions for Kaiser:

- (1) Does Kaiser have a "Door Closing Regulation Potrooms," PR-1 more current than February 7, 1997? If so, please submit a copy to Ecology.
- (2) Please submit the current "Specific Door Closure Standards" if more current than February 7, 1997.
- (3) Does Kaiser have a policy on when to repair or adjust pot doors to maximize collection of pot emissions or, conversely, to minimize escaping pot emissions? If Kaiser has such a policy, please submit it to Ecology. If Kaiser does not have a policy, does Kaiser intend to develop a policy? If not, why not?
- (4) Does Kaiser have a policy on when to repair the new pot door seals? If Kaiser has such a policy, please submit it to Ecology. If Kaiser does not have a policy, does Kaiser intend to develop a policy? If not, why not?
- (5) What policy or practice does Kaiser have in place regarding cleanup of spilled alumina on the potroom floors?
- (6) Concerning the smoking skip of paste outside of Section 1 of Line IV, what practice caused this event? Is this a common practice? Please elaborate.
- (7) I observed a shed that was used to cool dross. My experience at other smelters is that dross cooling in open sided sheds generates visible and fugitive emissions. How often does Kaiser place dross in this shed? What alternatives to this practice has Kaiser investigated?
- (8) In an October 19, 1999 letter to Ecology, Kaiser indicated that an engineering study would be complete by March 31, 2000 to find and implement an effective solution to fugitive emissions at the coke storage container and bucket elevator system. What is the status of this study?
- (9) In an October 19, 1999 letter to Ecology, Kaiser indicated that the rod mill mist eliminator is scheduled to be upgraded by June 30, 2000. This is the source of a bluish haze from the rod mill observed in other inspections. What is the status of this upgrade?

Formal enforcement is being considered as a result of this inspection. Please respond in writing to the above questions within 45 days of the date of this letter. If you have any questions or comments, please write me or call me at (360) 407-6915.

Sincerely,



Eric A. Oie, P.E.
Industrial Section

Enclosures

AIR INSPECTION REPORT

for

Kaiser, Tacoma Works

September 7, 2000

<u>Facility Name:</u>	Kaiser Aluminum & Chemical Corporation, Tacoma Works
<u>Facility Mailing Address:</u>	3400 Taylor Way Tacoma, WA 98421-4396
<u>Date of Inspection:</u>	May 3, 2000
<u>Date of Follow-up Inspection:</u>	May 19, 2000
<u>Personnel Present May 3 Inspection:</u>	Mark Jones, Kaiser Eric Oie, WDOE Kyle Ren, Kaiser
<u>Personnel Present May 19 Inspection:</u>	Paul Boys, EPA Dan Meyer, EPA Eric Oie, WDOE Kyle Ren, Kaiser

FACILITY DESCRIPTION:

The Kaiser Aluminum & Chemical Corporation, Tacoma Works, operates a primary aluminum smelter in Tacoma, Washington. The smelter includes three potlines, a paste plant, and a casting facility. The potlines contain 400 pots; 120 pots in each of Potlines I and II, and 160 pots in Potline IV. Kaiser produces aluminum in horizontal stud Soderberg pots. At full production, Kaiser is capable of producing 82,500 tons of aluminum per year or 226 tons per day.

During the inspection on May 3 and 19, 2000, Kaiser was producing aluminum at the rate of approximately 72,200 tons of aluminum per year, or 198 tons per day. During mid-June 2000, Kaiser curtailed production on all operating potlines due to high power costs.

REGULATORY HISTORY:

The most recent air compliance inspection conducted by Ecology at Kaiser was on June 22, 1999. Specific items of concern included: (1) pitch residues on and around the HEAF unit, building, and ground; (2) fugitive emissions at the coke storage container/bucket elevator system; (3) bluish haze at the rod mill; and (4) pitch weigh tank emissions. Formal enforcement did not result from this inspection. However, formal enforcement action, in the form of a penalty and order, did result from an inspection on October 6, 1999, due to improper operation and maintenance of the High Efficiency Air Filtration (HEAF) unit in the form of a sizable hole in the filtration fabric.

The following is a list of Kaiser's Tacoma Works air enforcement actions over the past decade:

Emission Standard	Violation	Date of Violation	Docket No.	Enforcement Response
WAC 173-415-030(2)	19.4 lb PM/ton > 15.0	1/90	90-I013	\$7750
WAC 173-415-030(2)	15.9 lb PM/ton > 15.0	10/91	92AQ-I024	\$7750
WAC 173-415-030(2)	16.0 lb PM/ton > 15.0	2/95	95AQ-I030	\$9800
WAC 173-415-030(6)	Open Pot Doors	1/97	97AQ-I036	\$3000
WAC 173-415-030(2)	18.0 lb PM/ton > 15.0	12/98	99AQ-I010	\$37,200
WAC 173-415-030(2)	17.9 lb PM/ton > 15.0	2/99	99AQ-I015	\$48,048
WAC 173-415-030(6)	Hole in HEAF Fabric	10/99	99AQIS-114	Order
WAC 173-415-030(6)	Hole in HEAF Fabric	10/99	99AQIS-115	\$4000

INPECTION OF EMISSION SOURCES:

Potrooms:

Potlines I and II each have 120 pots. Since the start of the strike Kaiser had shut down Line I. However, in November/December, Kaiser had re-energized 71 of the 120 pots on Line I. Each pot in Lines I and II produce approximately 900 pounds of aluminum per day. Subsequent to the inspection, Kaiser shut down all operating pots in mid-June of 2000.

Potline IV has 160 pots. Each pot in Line IV produces approximately 1400 pounds of aluminum per day. Subsequent to the inspection Kaiser shut down all operating pots in mid-June of 2000.

During the production of aluminum, the aluminum reduction cells or pots generate emissions of various pollutants, including particulate matter, fluoride, sulfur dioxide and polycyclic aromatic hydrocarbons. Kaiser has installed primary control devices that

evacuate and collect emissions from the hooded and enclosed pots. (These emissions are treated by the control system and the treated air is then discharged to the atmosphere.) The enclosure and evacuation system that contains and collects emissions from the pot is not 100 percent efficient at collecting the pot's emissions. At Kaiser's Tacoma Works, fifteen percent of a pot's emissions escape collection and treatment and are discharged untreated to the atmosphere. These emissions account for approximately 95 percent of Kaiser's total particulate and fluoride emissions to the atmosphere. Accordingly, operation and maintenance of the pot's enclosure, and work activities in a manner consistent with good air pollution control practice (WAC 173-415-030(6)) is paramount to minimizing the emissions of air pollutants to the atmosphere.

Different work operational practices contribute varying amounts of pollutant that escape collection. In terms of particulate emissions, Kaiser determined during a 1995 study on Line IV that, over a day's time, a closed pot contributes approximately 47% of all particulate emissions emitted from the potroom roof vents. A breaker run contributes approximately eleven percent, and a puncher run contributes approximately ten percent. Other activities with significant contributions to particulate emissions include: pot dig out, bucket ore-ups, and channel pulling. Relative contributions from activities that affect fluoride emissions would be similar to work activities affecting particulate emissions.

Accordingly, Ecology's air inspections place higher emphasis on the integrity and quality of the pot's enclosure. This includes placement and condition of the doors and seals. Such as, are the doors properly placed, do they fit well (tight) against the pot superstructure (are they plumb and flush)? What condition are the doors in? Are they straight or warped? Do they have holes?

Potroom Hooding

One of Kaiser's MACT compliance strategies is to install top and bottom seals on side doors and some end doors to improve hooding efficiency. At the time of the inspection, all pots in Line II had top seals. Only a 56-pot test section in Line II had bottom seals. Kaiser had a 40 pot test section (Section 4) in Line IV in which prototype top and bottom seals for both side and end doors have been installed. This section also had the final top seals. Kaiser has installed prototype top and bottom seals on side doors in Line II and (has also installed final top seals) has found the top seals acceptable for final use. Prototype bottom seals for test sections in both lines appear to suffer from excessive wear and tear and appear to be an ongoing maintenance concern.

Kaiser's proposed MACT compliance schedule is to have top door seals installed on all pots in Line IV by June 30, 2000 and bottom seals on all pots by October 31, 2000. Kaiser proposes to have all side door top seals in Lines I and II installed by November 30, 2000 and all bottom seals installed by May 31, 2001. Subsequent to the shut down of all potlines in mid-June 2000 Kaiser has requested from EPA that the above dates changed to allow Kaiser a longer period of time to install the pot door seals.

The May 3 inspection indicated that Kaiser's pot enclosure and evacuation system could use improvement. Pots in Lines I and II had large gaps, many warped shields, and new pot door seals were damaged and compromised. The table below summarizes Ecology's findings in the potrooms:

	Line I		Line II		Line IV	
	No. of pots	% of 71 pots	No. of pots	% of 120 pots	No. of pots	% of 160 pots
Improper Side Door Placement i.e. gaps due to debris, off-track, or no apparent reason	3	4.2	7	5.8	12	7.5
Poor Side Door Condition	4	5.6	3	2.5	2	1.3
Damaged Side Door Top Seals	N.A.	N.A.	13	10.8	N.A.	N.A.
Damaged Side Door Bottom Seals	9	12.7	31	25.8	10	6.3
Improper End Door Placement	1	1.4	3	2.5	1	0.6
Poor End Door Condition	9	12.7	12	10.0	21	13.1
Damaged End Door Seals	N.A.	N.A.	N.A.	N.A.	6	3.8
Smoking/Fuming pots	7	9.9	4	3.3	10	6.3

Notes: Line I did not have the new top seals yet. Lines I and II do not have end door seals. Line IV does not have side door top seals.

This isn't to say all was bad. Several pots were observed in which all doors fit properly without any gaps, and the condition of the doors and seals, if any, were good. This demonstrates that it is possible for Kaiser to properly maintain their pots. Even some pots without door seals had doors that were properly placed and in good condition such that the collection of the pot's emissions appeared more than adequate.

On May 19, a spot-check was made by Ecology and EPA personnel of some portions of Kaiser's potlines. The inspection checklist that Ecology previously used was refined based on what was learned from the previous inspection. Accordingly, the succeeding table is slightly different than the preceding table. This inspection revealed:

	Line II		Line IV	
	No. of pots	% of 60 pots	No. of pots	% of 80 pots
Improper Side Door Placement, i.e. gaps > 2"	15	25.0	4	5.0
Poor Side Door Condition, i.e. side doors that are bent, have holes, are off-track, or have debris	9	15.0	7	8.8
Damaged Side Door Top Seals	N.A.	N.A.	0	0
Damaged Side Door Bottom Seals	13	21.7	8	10.0
Improper End Door Placement	2	3.3	5	6.3
Poor End Door Condition	4	6.7	6	7.5
Damaged End Door Seals	N.A.	N.A.	3	3.8

Notes: Line 1 did not have the new top seals yet. Lines I and II do not have end door seals. Line IV does not have side door top seals.

Potroom Operations

This inspection on May 3 revealed one open unattended pot end door on Pot 9 in Line 1. A crust breaker was parked unattended between the two pots. Upon discovering this open door, no Kaiser workers were observed. However, during the course of recording inspection observations, a potroom worker appeared, reported that the crust breaker had broke down, but nonetheless moved the crust breaker and closed the door.

On May 3, a flex raise was observed in which the operator was having considerable trouble with the nuts on the bolts. The nuts kept falling into the pot, requiring the operator to get off his machine and retrieve the nuts. During the flex raise the side door is open. The result was that this operation took much longer than it normally would and more untreated emissions were released to the atmosphere.

The inspection on May 19, 2000 revealed four unattended pots with opened doors. Pot 94 in Line II and Pot 99 in Line IV had open end doors, and Pot 110 in Line IV had an open side door. In all three cases no maintenance activities were required to close the doors and all doors were closed by a Kaiser representative upon discovery by Ecology and EPA personnel during the inspection. In addition, Pot 101 in Line IV had all side and end doors open for no readily discernible reason; these doors were not closed at the time of the inspection.

Dual-flow Dampers

Lines I and II have dual flow dampers to increase the evacuation rate of the pot during work activities when the pot door is open. Only a few pots were observed during this inspection in which activities were taking place and the dual flow dampers were working. During one of these operations, (breaker run or puncher run) emissions were observed escaping the collection and evacuation system and escaping to the atmosphere.

Potroom Fugitive Emissions

Housekeeping in Section 4 of Line II appeared better than the rest of Line II and Line I. Housekeeping in Sections 1 and 2 of Line IV was adequate. This inspection indicated that ore buildup on the floors at the bucket filling station located in Line II at the ends of Pots 90 and 91 of Section 3 was excessive. In many places a thick blanket or mounds of alumina covered the potroom floor. For example, the A-side of Line I had much alumina spilled on the floor. Past experience indicates that wind, traffic, and work activities can entrain this material in the air, creating uncontrolled fugitive emissions.

Potroom Primary Emission Control System:

All of Kaiser's potlines are equipped with emission control devices. These devices consist of alumina injection into the duct to remove gaseous fluorides followed by a fabric filter for the removal of particulate matter. All of Kaiser's primary control devices are cleaned by a pulse-jet cleaning mechanism. Kaiser has a total of 36 dry alumina scrubbers (each dry scrubber shares one of three common ducts). Lines I and II have a total of 18 dry scrubber units referred to by Kaiser as the "10" and "20" series. Line IV has a total of 18 dry scrubber units referred to by Kaiser as the "30" and "40" series. Each dry scrubber unit has four stacks.

In response to recently promulgated MACT standards for total fluoride, Kaiser has been replacing the standard bags with pleated bags. At the time of the inspection, Kaiser had completed the conversion on the "10" and "20" (Lines I and II) dry scrubbers. Kaiser has also completed conversion on the "30" series and has completed five of nine reactors on the "40" series dry scrubbers (Line IV).

During the inspection of the dry scrubbers no problems were observed. Seals on top of the reactors had no leaks, no visible emissions from the stacks were observed and no fugitive emissions were observed. Because Kaiser had just refurbished and installed pleated bags in the majority of the reactors, few problems would be expected.

One potential problem area was near the fresh ore air slides of the "30" and "40" series reactors. Accumulated unreacted ore was observed on top of the air slides. It appeared that the source of this alumina may have been from the vents near the air slides.

Ancillary Operations:

An inspection of the paste plant and high efficiency air filtration (HEAF) unit revealed no observable problems.

During inspection of the elevated portions of the "20" series baghouses, a cloud of visible emissions was observed to the southeast of Kaiser's property. Investigation revealed that Kaiser's vacuum truck was dumping its load of collected dust and particulate matter. This dumping operation is supposed to occur inside a building equipped with water sprays to control fugitive emissions. However, during this particular unloading, the operator did not back into the building, even though nothing apparent prevented him from doing so. Wind carried away the reacted ore in thick clouds. Subsequently, in a letter dated May 30, 2000, Kaiser reported that this problem has been corrected. Ecology also observed similar events and emissions from the same operation in afternoon of February 18, 2000.

An open skip was observed outside Line 4, Section 1. This open skip contained hot paste that emitted uncontrolled paste fumes, containing particulate and POMs, to the atmosphere.



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

August 28, 1998

Mr. Mark Jones, Safety, Health, & Environmental Manager
Kaiser Aluminum & Chemical Corp.
Tacoma Works
3400 Taylor Way
Tacoma, WA 98421

Subject: Elimination of Pitch Weigh Tank Fumes

Dear Mr. Jones:

Ecology is aware that pitch fumes escape from the pitch weigh tank during normal operation of Kaiser's paste plant. These fumes were observed during an air inspection on January 29, 1997, and again on August 26, 1998 while observing source tests at the paste plant. Upon request by Ecology, Kaiser responded by letter on May 22, 1997. Kaiser stated that the fumes are from the pitch weigh tank- when the tank is filled with pitch, displaced air is vented through a 1.5 inch pipe. Ecology understands that Kaiser has discussed this issue, including possible solutions, but has not yet enacted a means to reduce or eliminate this source of emissions.

Ecology would like these emissions to be eliminated. A significant percentage of coal tar pitch is polynuclear aromatic hydrocarbons, which are suspected and/or known human carcinogens. In addition, these emissions are a source of opacity and particulate to the environment. Ecology asks for Kaiser's help to successfully address this issue now.

This discharge point is designated as generation point 6-1 for process #2 (paste plant) in Kaiser's air operating permit application. Kaiser cites WAC 173-401-533(2)(t) as the basis for designating this generation point as an insignificant emissions unit (IEU). This regulation reads as follows:

(2) The following units and activities are determined to be insignificant based on their size or production rate:

(t) Equipment used exclusively to pump, load, unload or store high boiling organic material, material with initial boiling point (IBP) not less than 150°C. or vapor pressure (vp) not more than 5mm Hg at 21°C. with lids or other appropriate closure.

Ecology has the following questions in regard to this designation:

1. Does Kaiser's pitch meet these boiling point and/or vapor pressure criteria for this exemption? Please provide this information.
2. Does the pitch weigh tank have a lid or other appropriate closure device for the pitch weigh tank? If so, please describe what makes the closure device appropriate for this application.

If the answer to either or both of these questions is no, then this emission point cannot qualify for IEU status under this exemption. This brings up a third question:

3. Does Kaiser have any data, such as source tests, emission factors, etc., to estimate emissions from this source? If so, please submit this information.

Furthermore, Ecology believes that control of this emission point is required by MACT regulation. The general emission limit for paste plants, Part 63.843(b)(1) states that "The owner or operator shall install, operate, and maintain equipment to capture and control POM emissions from each paste production plant." The definition of paste production plant in 40 CFR Part 63.842 includes "...all operations...within the paste plant, including conveyors and units managing heated liquid pitch." Therefore, this emission point should be captured and controlled for MACT.

Kaiser is seeking approval from EPA for equivalency of the HEAF unit, in lieu of installing a dry coke scrubber. One requirement of equivalency is to demonstrate that the emission capture system meets the standards of "Industrial Ventilation: A Handbook of Recommended Practice." Ecology believes that this uncontrolled emission might not meet this requirement. Please provide a demonstration that this vent meets "... the generally accepted engineering standards for minimum exhaust rates...", as required by 40 CFR Part 63.843 (b)(1). In addition, all emission points, including IEU's, are subject to the generally applicable requirements in Chapters 173-400 and 173-415 WAC.

Please respond to these questions by September 18, if possible. Elimination of this emission point would be the ideal solution. Please submit a schedule for either the elimination or control of this emission point. If you have any questions, please call me at 360-407-6945.

Kaiser Tacoma Pitch Weigh Tank Fume Elimination
08/28/98

Sincerely,

Don Reif

Don Reif
Environmental Engineer

Copy: Eric Oie, Industrial Section
Mr. Paul Boys, EPA Region X, Seattle
Kaiser Tacoma Air Correspondence File

Exempt # 75-89

RECOMMENDATION FOR ENFORCEMENT ACTION

MEMO TO: Enforcement Officer

DATE: 4/3/75

FROM: James Knudsen
(Full Name and Public Phone Number)

RECOMMEND ENFORCEMENT ACTION BE TAKEN AGAINST:

I. Kaiser Aluminium and Chemical Corp
(Name: Company, Individual, Municipality, County, etc.)
3400 Taylor Way, Tacoma, Wa. ZIP: 98421
(Address)

II. For:

- ☐ A. Violation of Water Well Construction Act of 1971, Chapter 18.104 RCW.
Specific paragraph RCW/WAC _____
- ☒ B. Violation of Clean Air Act, Chapter 70.94 RCW.
Specific paragraph RCW/WAC 18-52-030(2)
- ☐ C. Violation of Flood Control Laws, Chapter 86.16 RCW.
Specific paragraph RCW/WAC _____
- ☐ D. Denial of water right application Number _____ (RCW 90.03.290)
Volume of withdrawal or diversion: _____ Proposed Use _____
- ☐ E. Violation of Water Resource Laws Title 90 RCW.
Specific paragraph RCW/WAC _____
- ☐ F. Unlawful discharge of wastes into state waters, RCW 90.48.080.
- ☐ G. Water Quality: Regulatory Notice or Order, RCW 90.48.120.
- ☐ H. Noncompliance with waste discharge permit conditions, RCW 90.48.180.
- ☐ I. Intentional or negligent discharge of oil into state waters, RCW 90.48.350.
1. Type of oil (diesel, gasoline, fuel, bunker C, crude, etc.) _____
2. Amount of oil spilled: _____ gallons/barrels.
- ☐ J. Appeal of Substantial Development Permit, Chapter 90.58 RCW.
- ☐ K. Modification of Water Quality Criteria, WAC 173-201-100 (2).
- ☐ L. Other _____

III. The violation occurred at: (Time) _____ (Date) Month of Feb, 1975

IV. Location of the incident/activity: 15 lb/ton solid particulate limit.

V. Name of watercourse involved: _____

VI. Narrative of incident/situation: (Use separate page or memo if necessary.)

See copy of my letter of March 17, 1975.
and February source emission data attached

Page 2

RECOMMENDATION FOR ENFORCEMENT ACTION

Date: 4/3/75

Name of Company or Individual: Kaiser A.C.C.

VII. Physical evidence obtained: Samples _____ Pictures _____ Other _____

VIII. Names and addresses of Witnesses: _____

IX. Recommended Penalty OR Corrective action to be taken: Notice of Violation
and ^{over for} time table for items mentioned in my letter of
March 17, 1975 attached.

Enclosures:

Lab Report, No. _____
Pictures _____
SHORELINES APP & PERMIT _____

Jim Knudson
(Investigated By)
A. Q. E. III
(Title)

cc: PSAPCA, Ron Busby
INDORSEMENTS

TO: Regional Manager

FROM: District Supervisor

Recommend enforcement action (not) be taken as proposed.

(District Supervisor)

TO: Enforcement Officer

FROM: Regional Manager

Recommend enforcement action (not) be taken as proposed.

[Signature]
(Regional Manager)

March 17, 1975

State of
Washington
Department
of Ecology



Mr. Hal Pearson
Works Manager
Kaiser Aluminum and Chemical Corp.
3400 Taylor Way
Tacoma, WA 98421

Dear Mr. Pearson:

Thanks for the courtesies extended to me during my visit of March 14, 1975. I would like to confirm your remarks on problems you have encountered with the dry scrubbing system, and your proposed solutions. Your January, 1975 emission report shows marginal violation of the solid particulate limit of 15 pounds per ton.

Your company is presently taking the following measures to correct the problem:

- (a) Improved housekeeping in line I including hand sweeping of isles and floors, maintaining seals on the doors, and a "smoke" pot audit.
- (b) Bucket-load transfer of reacted alumina from dust collectors to the storage bin in line I; this is an effort to avoid generation of excessive fines contributing to line I monitor emissions. A large share of this can be traced to excessive recycling of reacted alumina coming from a dust collector handling air slide exhausts. You are presently working on an engineering solution to the dust collector recycle problem.
- (c) Long-range plans include an enclosed system for loading ore buckets as well as pot filling from the ore bucket. This would involve capturing and collecting the displaced air.

I know you share our concern with the trend of your particulate emissions and will endeavor to keep the Department informed as to progress and efforts to solve these problems. A rough timetable for (b) and (c) above should be forwarded as soon as available.

Page two
Mr. Hal Pearson
March 17, 1975

EX-100-100000
01100000

You also mentioned the possible installation of a reacted alumina calciner to burn off hydrocarbons prior to reintroduction of feed to the cells. The air discharge from the calciner will be ducted to one of the reactors for fluoride collection. A determination on whether this will qualify for a notice of construction will need to be made after your A.F.E. is approved.

Sincerely,

James C. Knudson

James C. Knudson
Industrial Section

JCK:dn

cc: James Behlke

DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE COMPLIANCE BY)
KAISER ALUMINUM AND CHEMICAL)
CORPORATION)
with Chapter 70.94 RCW and the)
Regulations of the Department)
of Ecology)

ORDER
Docket No. DE 75-89

To: Kaiser Aluminum and Chemical Corporation
3400 Taylor Way
Tacoma, Washington 98421

RCW 70.94.011 declares it is the public policy of the State to secure and maintain such levels of air quality as will protect human health and safety and comply with requirements of the federal clean air act, and, to the greatest degree practicable, prevent injury to plant inhabitants, promote the economic and social development of the State and facilitate the enjoyment of the natural attractions of the State. RCW 70.94.040 reads in part as follows: Except where specified in a variance permit, as provided in RCW 70.94.101, it shall be unlawful for any person knowingly to cause air pollution or knowingly permit it to be caused in violation of this chapter, or of any ordinance, resolution, rule or regulation validly promulgated hereunder.

Kaiser Aluminum and Chemical Corporation, Tacoma, Washington, has experienced difficulties in the dry scrubbing system. Particulate emissions exceeded the allowable standards for the second month in a row during February 1975.

RCW 70.94.332 reads in part: Whenever the department has reason to believe that any provision of this chapter or any rule or regulation adopted by the state board or being enforced by the state board under RCW 70.94.410 relating to the control or prevention of air pollution has been violated, it may cause written notice to be served upon the alleged violator or violators and may include an order that necessary corrective action be taken within a reasonable time.

In view of the foregoing and in accordance with the provisions of RCW 70.94.332

IT IS ORDERED that Kaiser Aluminum and Chemical Corporation shall, upon receipt of this order, take appropriate action in accordance with the following instructions:

1. Improve the housekeeping on Line 1, including hand sweeping of isles and floors, maintaining seals on the doors, and a "smokey" pot audit.

Page Two
Kaiser Aluminum and Chemical Corp.
Docket No. DE 75-99

2. Bucket-load transfer of reacted alumina from dust collectors to the storage bin in Line I.
3. Eliminate manual transfer of alumina fines not later than July 15, 1975.
4. Install an improved system for transfer of alumina from Line I and II storage bins to pot hoppers:

	<u>Loading Ore Bucket Compliance Date</u>	<u>Ore bucket Discharge Compliance Date</u>
Engineering design	June 1, 1975	May 1, 1975
Complete prototype	Sept. 30, 1975	July 1, 1975
Test & modify prototype	Nov. 15, 1975	August 15, 1975
Operational	March 15, 1976	March 15, 1976

This Order is issued under the provisions of RCW 70.04.332. Any person feeling aggrieved by the same may obtain review thereof by application within twenty (20) days of receipt of this order, to the State Air Pollution Control Board under the provisions of Chapter 70.04 RCW, and the rules and regulations adopted thereunder.

DATED at Olympia, Washington this 12 day of May, 1975.

James P. Gehlke
Executive Assistant Director
Department of Ecology
State of Washington

Copies of this Order are
distributed as follows:

1. DOE Enforcement File No. DE 75-99
2. Kaiser Aluminum and Chemical Corporation (2 copies)
3. Attorney General

State of
Washington
Department
of Ecology



APR 5 1976

CERTIFIED MAIL

Kaiser Aluminum and Chemical Corp.
3400 Taylor Way
Tacoma, WA 98421

Gentlemen:

Enclosed is an ORDER, Docket No. DE 75-39, and a form entitled "Acknowledgment of Service." Please sign the original of the Acknowledgment of Service form and return it to this office. All correspondence relating to the enclosed docket should be directed to the enforcement officer.

The action required in regard to the enclosed docket is self-evident. If you have any questions concerning the content of the docket, please call Mr. Jim Knudson, telephone (Olympia) 753-3234.

Very truly yours,

Lloyd K. Taylor
Enforcement Officer

LKT:sw

Enclosures

1304 1373

Exempt # 75-89

RECOMMENDATION FOR ENFORCEMENT ACTION

MEMO TO: Enforcement Officer

DATE: 2/27/76FROM: James C. Knudson 753-3884
(Full Name and Public Phone Number)

RECOMMEND ENFORCEMENT ACTION BE TAKEN AGAINST:

I. ~~Weyerhaeuser~~ ~~Co.~~ Kaiser Aluminum + Chemical Corp.
(Name) Company, Individual, Municipality, County, etc.)3400 Taylor Way, Tacoma, Wa. ZIP: 98421
(Address)

II. For:

- A. Violation of Water Well Construction Act of 1971, Chapter 18.104 RCW.
Specific paragraph RCW/WAC
- B. Violation of Clean Air Act, Chapter 70.94 RCW.
Specific paragraph RCW/WAC
- C. Violation of Flood Control Laws, Chapter 86.16 RCW.
Specific paragraph RCW/WAC
- D. Denial of water right application Number (RCW 90.03.290)
Volume of withdrawal or diversion: Proposed Use
- E. Violation of Water Resource Laws Title 90 RCW.
Specific paragraph RCW/WAC
- F. Unlawful discharge of wastes into state waters, RCW 90.48.080.
- G. Water Quality: Regulatory Notice or Order, RCW 90.48.120.
- H. Noncompliance with waste discharge permit conditions, RCW 90.48.180.
- I. Intentional or negligent discharge of oil into state waters, RCW 90.48.350.
1. Type of oil (diesel, gasoline, fuel, bunker C, crude, etc.)
2. Amount of oil spilled: gallons/barrels.
- J. Appeal of Substantial Development Permit, Chapter 90.58 RCW.
- K. Modification of Water Quality Criteria, WAC 173-201-100 (2).
- X L. Other Modification of Existing Order

III. The violation occurred at: (Time) (Date) IV. Location of the incident/activity: V. Name of watercourse involved:

VI. Narrative of incident/situation: (Use separate page or memo if necessary.)

See attached memo.SARA, - Modify only That part of the order
Referring to Step #4. We don't need all the prologue.Rlyed

Page 2

RECOMMENDATION FOR ENFORCEMENT ACTION

Date: 2/27/76

Name of Company or Individual: Kaiser Aluminum & C C

VII. Physical evidence obtained: Samples _____ Pictures _____ Other _____

VIII. Names and addresses of Witnesses: _____

IX. Recommended Penalty OR Corrective action to be taken: modification

of order DE 75-89

Enclosures:

Lab Report. No. _____

Pictures _____

SHORELINES APP & PERMIT _____

James C. Koudsen
(Investigated By)
A-Q-E. III
(Title)

ENDORSEMENTS

TO: Regional Manager

FROM: District Supervisor

Recommend enforcement action (not) be taken as proposed.

(District Supervisor)

TO: Enforcement Officer

FROM: Regional Manager

Recommend enforcement action (not) be taken as proposed.

Richard A. Berthel
(Regional Manager)

DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE COMPLIANCE BY)
KAISER ALUMINUM & CHEMICAL CORP.)
with Chapter 70.94 RCW and the)
Rules and Regulations of the)
Department of Ecology)

NOTICE OF VIOLATION
Docket No. DE 76-280

To: Kaiser Aluminum & Chemical Corporation
3400 Taylor Way
Tacoma, Washington 90421

RCW 70.94.011 declares it is the public policy of the state to secure and maintain such levels of air quality as will protect human health and safety and comply with requirements of the federal clean air act, and, to the greatest degree practicable, prevent injury to plant and animal life and property, foster the comfort and convenience of its inhabitants, promote the economic and social development of the state and facilitate the enjoyment of the natural attractions of the state. RCW 70.94.040 reads in part as follows: Except where specified in a variance permit, as provided in RCW 70.94.181, it shall be unlawful for any person knowingly to cause air pollution or knowingly permit it to be caused in violation of this chapter, or of any ordinance, resolution, rule or regulation validly promulgated hereunder.

RCW 70.94.332 reads in part: Whenever the department has reason to believe that any provision of this chapter or any rule or regulation adopted thereunder relating to the control or prevention of air pollution has been violated, it may cause written notice to be served upon the alleged violator and may include an order that necessary corrective action be taken within a reasonable time. Notice is hereby given in accordance therewith as follows:

During the month of June 1976, Kaiser Aluminum & Chemical Corporation, Tacoma, Washington, exceeded the 15 lb/ton monthly particulate emission to production ratio limit with an average of 16.54 lbs/ton, in violation of Chapter 70.94 RCW and WAC 18-52-031(2)

The determination or proposed action does not constitute an order or directive under RCW 70.94.332. Within twenty (20) days from the receipt of this Notice of Violation, Kaiser Aluminum & Chemical Corporation shall file with the department a full report, stating what steps have been and are being taken to control such emissions or to otherwise comply with the determination of the department.

DATED at Olympia, Washington, this 19 day of August, 1976.

Donald O. Provost
Assistant Director
Department of Ecology
State of Washington

DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE ASSESSMENT	)	NOTICE OF PENALTY
OF PENALTY AGAINST	)	INCURRED AND DUE
KAISER ALUMINUM AND CHEMICAL CORPORATION	)	Docket No. DE 79-528
(Tacoma Works))	

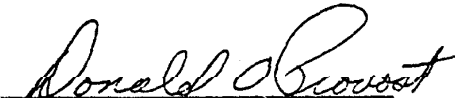
To: Kaiser Aluminum and
Chemical Corporation
3400 Taylor Way
Tacoma, WA 98421

Notice is hereby given that you have incurred, and there is now due from you, a penalty in the amount of \$250.00 under the provisions of RCW 70.94.431.

The basis for this penalty is that Kaiser Aluminum and Chemical Corporation (Tacoma Works) exceeded the monthly average particulate limit of 15 pounds per ton during the month of July 1979 in violation of WAC 18-52-031(2) and RCW 70.94.

The penalty described is due and payable by you within thirty (30) days of your receipt of this Notice. If, however, for any reason you believe the violation herein described did not occur or that you have an explanation as to why it occurred, or any other fact which you believe should be considered with regard to this penalty, you have the right to request that a hearing be conducted under the provisions of Chapter 34.04 RCW. If you desire to request a hearing, your request for such hearing must be submitted within thirty (30) days of your receipt of this Notice and must be prepared in accordance with the instructions governing such appeals as described in WAC 371-08-075.

DATED at Olympia, Washington, this 15th day of October 1979.


Donald O. Provost
Assistant Director
Department of Ecology
State of Washington

DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE ASSESSMENT
OF PENALTY AGAINST
KAISER ALUMINUM & CHEMICAL
CORPORATION (TACOMA)

)
)
)
)

NOTICE OF PENALTY
INCURRED AND DUE
Docket No. DE 81-554

To: Kaiser Aluminum & Chemical
Corporation (Tacoma)
3400 Taylor Way
Tacoma, WA 98421

Notice is hereby given that you have incurred, and there is now due from you, a penalty in the amount of \$9,750.00 under the provisions of RCW 70.94.431.

The basis for this penalty is that on 20 days in June and 31 days in July 1981, Kaiser Aluminum & Chemical Corporation (Tacoma) exceeded the particulate emission standard of 15 pounds per ton in violation of WAC 173-415-030(3).

The penalty described is due and payable by you within thirty (30) days of your receipt of this Notice. Any person feeling aggrieved by this penalty may obtain review thereof by application, within thirty days of receipt of this penalty, to the Washington Pollution Control Hearings Board, Olympia, Washington 98504, with a copy to the Director, Department of Ecology, Olympia, Washington 98504, pursuant to the provisions of Chapter 43.21B RCW and the rules and regulations adopted thereunder.

DATED at Olympia, Washington SEP 24 1981

John Spencer

John Spencer
Deputy Director
Department of Ecology
State of Washington

DEPARTMENT OF ECOLOGY

IN THE MATTER OF DETERMINING SLUDGE)
EFFECTS ON WATER QUALITY BY THE)
KAISER ALUMINUM AND CHEMICAL)
CORPORATION, TACOMA WORKS)

ORDER
No. DE 83-197

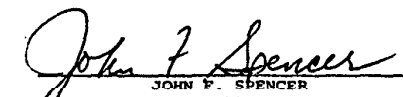
TO: Kaiser Aluminum and Chemical
Corporation
3400 Taylor Way
Tacoma, WA 98421

During a recent survey at its Tacoma Reduction Works, the Kaiser Aluminum and Chemical Corporation discovered that sludges generated by past methods of air pollution control may be contaminating ground and surface waters. A preliminary analysis indicates that the sludge contains significant levels of polynuclear aromatic hydrocarbons, and may also contain other pollutants.

Therefore, in accordance with provisions of chapter 90.48 RCW, the Kaiser Aluminum and Chemical Corporation, herein after called the company, is ordered to perform the following activities.

- (1) Plan and perform a study to determine the quantity and characteristics of the sludge. A study plan shall be submitted for department approval on or before April 22, 1983.
- (2) Plan and perform a sampling program for surface waters, ground waters, and sediments. The sampling plan shall be submitted for department approval on or before April 22, 1983.
- (3) Results of the study and sampling described in activities (1) and (2) shall be completed and the results submitted to the department on or before July 1, 1983.

DATED at Olympia, Washington this 15th day of April 1983.


JOHN F. SPENCER
DEPUTY DIRECTOR
DEPARTMENT OF ECOLOGY
STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE ASSESSMENT	)	NOTICE OF PENALTY
OF PENALTY AGAINST KAISER	)	INCURRED AND DUE
ALUMINUM AND CHEMICAL CORPORATION	)	No. DE 85-460

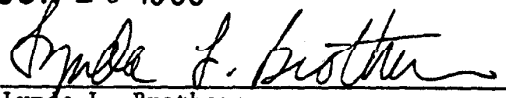
To: Kaiser Aluminum and Chemical Corporation
Tacoma Plant
3400 Taylor Way
Tacoma, WA 98421

Notice is hereby given that you have incurred a penalty in the amount of \$7,500.00 under the provisions of RCW 70.94.431(1).

The basis for this penalty is that Kaiser Aluminum and Chemical Corporation, Tacoma Plant, exceeded the standard for particulate emission, as set forth in WAC 173-415-030(3), during April 1985. The penalty is calculated at \$250.00 a day for 30 days.

The penalty described is due and payable by you within thirty (30) days of your receipt of this Notice. Any person feeling aggrieved by this penalty may obtain review thereof by application within thirty (30) days of receipt of this Notice to Washington Pollution Control Hearings Board, Mail Stop PY-21, Olympia, WA 98504, pursuant to the provisions of Chapter 43.21B RCW and Chapter 371-08 WAC.

DATED at Olympia, Washington JUN 19 1985


Lynda L. Brothers
Assistant Director
Department of Ecology
State of Washington

DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE ASSESSMENT)
OF PENALTY AGAINST)
KAISER ALUMINUM AND CHEMICAL CORPORATION))

NOTICE OF PENALTY
INCURRED AND DUE
No. DE 86-303

To: Kaiser Aluminum and Chemical Corp.
3400 Taylor Way
Tacoma, WA 98421

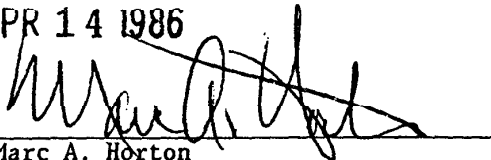
Notice is hereby given that you have incurred a penalty in the amount of \$29,400 under the provisions of RCW 70.94.431(1).

The basis for this penalty is that Kaiser Aluminum and Chemical Corporation exceeded the standard for particulates, as set forth in WAC 173-415-030(3), in December 1985 and January 1986.

The penalty described is due and payable by you within thirty (30) days of your receipt of this Notice. Any person feeling aggrieved by this penalty may obtain review thereof by application within thirty (30) days of receipt of this Notice to Washington Pollution Control Hearings Board, Mail Stop PY-21, Olympia, WA 98504-8921, pursuant to the provisions of Chapter 43.21B RCW and Chapter 371-08 WAC.

DATED at Olympia, Washington

APR 14 1986



Marc A. Horton
Deputy Director
Office of Operations and Enforcement

DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE ASSESSMENT	)	NOTICE OF PENALTY
OF PENALTY AGAINST	)	INCURRED AND DUE
KAISER ALUMINUM AND CHEMCIAL CORP.	)	No. DE 87-134

To: Kaiser Aluminum & Chemical Corp.
3400 Taylor Way
Tacoma, WA 98421

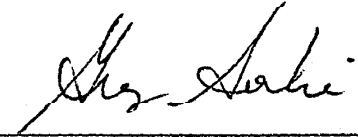
Notice is hereby given that you have incurred a penalty in the amount of \$15,500.00 under the provisions of RCW 70.94.431(1).

The basis for this penalty is that Kaiser Aluminum and Chemical Corp. exceeded the standard for particulate emission, as set forth in WAC 173-415-030(3), in January 1987.

The penalty described is due and payable by you within thirty (30) days of your receipt of this Notice. Any person feeling aggrieved by this penalty may obtain review thereof by application within thirty (30) days of receipt of this Notice to Washington Pollution Control Hearings Board, Mail Stop PY-21, Olympia, WA 98504-8921, pursuant to the provisions of Chapter 43.21B RCW and Chapter 371-08 WAC.

DATED at Olympia, Washington

4/22/87



Greg Sorlie
Program Manager
Central Operations

DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE COMPLIANCE BY)
KAISER ALUMINUM & CHEMICAL CORP.)
with Chapter 70.94 RCW and the)
Rules and Regulations of the)
Department of Ecology)

ORDER
No. DE 87-233

To: Kaiser Aluminum & Chemical Corp.
3400 Taylor Way
Tacoma, WA 98421

The rules adopted in Chapter 18-52 WAC are enacted under the provisions of the 1969 amendments to the Washington Clean Air Act (RCW 70.94.395) and to assume state jurisdiction over emissions from primary aluminum reduction plants in order to provide for the systematic reduction and control of air pollution in the primary aluminum reduction industry.

An annual air inspection was conducted at the Kaiser-Tacoma reduction plant on May 14, 1987. Problems were found with the maintenance of cell doors, which are part of the air pollution control system, and are therefore subject to the Operation and Maintenance provisions of WAC 173-415-030(10).

RCW 70.94.332 reads in part: Whenever the department has reason to believe that any provision of this chapter or any rule or regulation adopted thereunder relating to the control or prevention of air pollution has been violated it may cause written notice to be served upon the alleged violator or violators and may include an order that necessary corrective action be taken within a reasonable time.

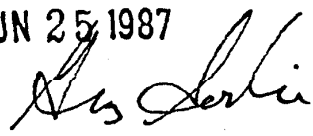
In view of the foregoing and in accordance with the provisions of RCW 70.94.332:

IT IS ORDERED that Kaiser Aluminum and Chemical Corporation shall, upon receipt of this Order, take appropriate action in accordance with the following instructions:

1. A cell door operating procedure and training program shall be developed for both lines.
2. A cell door inspection, reporting, and maintenance program shall be developed.
3. These plans and procedures shall be submitted for the Department's review and approval by September 1, 1987.

DATED at Olympia, Washington

JUN 25 1987



Greg Sorlie
Program Manager
Central Operations

DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE ASSESSMENT	)	NOTICE OF PENALTY
OF PENALTY AGAINST	)	INCURRED AND DUE
KAISER ALUMINUM AND CHEMICAL	)	No. DE 90-1013
CORPORATION		

To: Kaiser Aluminum and Chemical Corporation
3400 Taylor Way
Tacoma, WA 98421

Notice is hereby given that you have incurred, and there is now due from you, a penalty in the amount of \$7,750.00 under the provisions of RCW 70.94.

The basis for this penalty is that in January 1990, Kaiser Aluminum & Chemical Corporation exceeded the particulate emission standard set forth in WAC 173-415-030(3) (19.4 lbs/ton vs 15.0 lbs/ton limit).

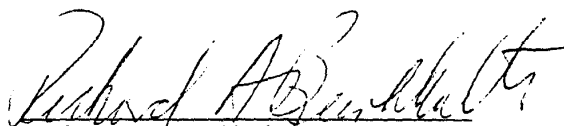
The penalty herein described is due and payable by you within thirty (30) days of your receipt of this Notice. Please remit the penalty fee payable to Fiscal Cashier, Department of Ecology, Mail Stop PV-11, Olympia, Washington 98504-8711. If, however, for any reason, you believe that the violation herein described did not occur or that you have an explanation as to why it occurred, or any other fact which you believe the department should consider with regard to this penalty, and desire to submit an "APPLICATION FOR RELIEF FROM PENALTY," you should set forth these facts on the enclosed form and return it to the department within fifteen (15) days. This form must be signed under oath before a notary public or any other person authorized to take oaths.

Upon receipt of an "APPLICATION FOR RELIEF FROM PENALTY," the department will consider the same and will either reduce the penalty, cancel the penalty, or allow it to remain as originally stated. You will be duly notified by the department of its action.

Any person feeling aggrieved by this penalty may obtain review thereof by application, within 30 days of receipt of this penalty, to the Washington Pollution Control Hearing Board, Mail Stop PY-21, Olympia, Washington 98504-8921. Concurrently, a copy of the application must be sent to the Department of Ecology, Mail Stop PV-11, Olympia, Washington 98504-8711. These procedures are consistent with the provisions of Chapter 43.21B RCW and the rules and regulations adopted thereunder.

DATED at Olympia, Washington

APR 17 1990


Richard A. Burkhalter, P.E.
Supervisor, Industrial Section

CHRISTINE O. GREGOIRE

~~ANDREW S. K. K. K. K.~~

Director



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE ASSESSMENT
OF A PENALTY AGAINST
KAISER ALUMINUM AND CHEMICAL
CORPORATION

ORDER UPON SATISFACTION
OF PENALTY ASSESSMENT
Docket No. DE 90-1013

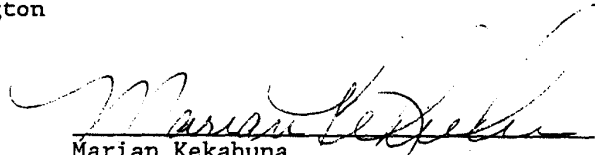
To: Kaiser Aluminum and Chemical Corporation
3400 Taylor Way
Tacoma, Washington 98421

By "NOTICE OF PENALTY INCURRED AND DUE," dated the 17th day of April, 1990, a total penalty assessment of \$7,750 was levied against Kaiser Aluminum and Chemical Corporation pursuant to the provisions of RCW 70.94.

The Department of Ecology, having received on the 16th day of May, 1990 a total of \$7,750 from Kaiser Aluminum and Chemical Corporation, to satisfy the above-described penalty assessment, hereby issues this Order establishing that the penalty assessment of Docket No. DE 90-1013 has been fully satisfied.

DATED at Olympia, Washington

MAY 19 1990


Marian Kekahuna
Enforcement Coordinator

DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE ASSESSMENT)
OF PENALTY AGAINST)
KAISER ALUMINUM & CHEMICAL CORP.)

NOTICE OF PENALTY
INCURRED AND DUE
No. DE 92-AQ1024

To: Mr. Ron Schutz, Plant Manager
Kaiser Aluminum & Chemical Corporation
Tacoma Reduction Plant
3400 Taylor Way
Tacoma, Washington 98421

Notice is hereby given that you have incurred, and there is now due from you, a penalty in the amount of \$7750 under the provisions of RCW 70.94.

The basis for this penalty is that during October 1991, the Kaiser Tacoma Reduction Plant violated the 15 pounds particulate per ton of aluminum production air emission standard listed under WAC 173-415-030(2).

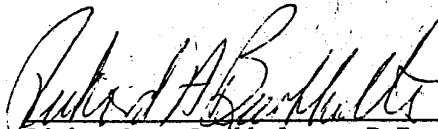
The penalty herein described is due and payable by you within thirty (30) days of your receipt of this Notice. Please remit the penalty fee payable to Fiscal Cashier, Department of Ecology, Mail Stop PY-11, Olympia, Washington 98504-8711. If however, for any reason, you believe that the violation herein described did not occur or that you have an explanation as to why it occurred, or any other fact which you believe the department should consider with regard to this penalty, and desire to submit an "APPLICATION FOR RELIEF FROM PENALTY," you should set forth these facts on the enclosed form and return it to the department within (15) days. This form must be signed under oath before a notary public or any other person authorized to take oaths.

Upon receipt of an "APPLICATION FOR RELIEF FROM PENALTY," the department will consider the same and will either reduce the penalty, cancel the penalty, or allow it to remain as originally stated. You will be duly notified by the department of its action.

Any person feeling aggrieved by this penalty may obtain review thereof by application, within thirty (30) days of receipt of this penalty, to the Washington Pollution Control Hearings Board, Mail Stop PY-21, Olympia, Washington 98504-8921. Concurrently, a copy of the application must be sent to the Department of Ecology, Mail Stop PY-11, Olympia, Washington 98504-8711. These procedures are consistent with the provisions of Chapter 43.21B RCW and the rules and regulations adopted thereunder.

DATED at Olympia, Washington

JAN 30 1992



Richard A. Burkhalter, P.E.
Supervisor, Industrial Section

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE ASSESSMENT	)	ORDER UPON SATISFACTION
A PENALTY AGAINST	)	OF PENALTY ASSESSMENT
KAISER ALUMINUM AND CHEMICAL CORP	)	No. DE 92AQ-I024

To: Kaiser Aluminum and Chemical Corporation
Tacoma Reduction Plant
3400 Taylor Way
Tacoma, Washington 98421

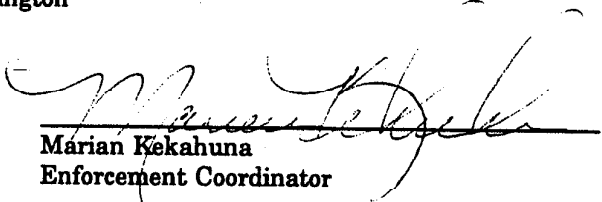
ATTN: Ron Schutz

By "NOTICE OF PENALTY INCURRED AND DUE," dated the 30th day of January, 1992, a total penalty assessment of \$7,750 was levied against Kaiser Aluminum and Chemical Corporation pursuant to the provisions of RCW 70.94.

The Department of Ecology, having received on the 3rd day of March, 1992, a total of \$7,750 from Kaiser Aluminum and Chemical Corporation, to satisfy the above described penalty assessment, hereby issues this Order establishing the penalty assessment No. DE 92AQ-I024 has been fully satisfied.

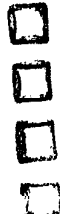
DATED at Olympia, Washington

MAR 06 1992


Marian Kekahuna
Enforcement Coordinator

FILE COPY

AIR
WATER/SOLID
HAZ. WASTE
H777





STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

May 7, 1993

CERTIFIED MAIL

P 426 939 224

Mr. Ron Schutz, Plant Manager
Kaiser Aluminum & Chemical Corporation
Tacoma Reduction Plant
3400 Taylor Way
Tacoma, Washington 98421

Dear Mr. Schutz:

Subject: Notice of Violation of the Washington Clean Air Act (Ch. 70.94 RCW),
No. DE 93-AQI057

In accordance with RCW 70.94.332, Ecology is providing you 30 days written notice that Kaiser Aluminum & Chemical Corporation, Tacoma Reduction Plant has violated WAC 173-400-040(8), Fugitive dust sources, on April 6, 1993, when it failed to take reasonable precautions to prevent fugitive dust from becoming airborne, and failed to maintain and operate the source to minimize emissions, from the Line IV ore unloading station. Also on April 6, 1993, Kaiser Aluminum & Chemical Corporation, Tacoma Reduction Plant, violated WAC 173-415-030(6), Operation and maintenance, when it failed to operate and maintain air pollution control equipment in a manner consistent with good air pollution control practices, specifically a Line IV baghouse.

RCW 70.94.332 authorizes Ecology, at its discretion, to require the person(s) receiving a Notice of Violation to appear before it and provide information about the violations alleged. Ecology requests that you appear before it within 30 days of receipt of this Notice at the Industrial Section conference room, to provide information about the violations alleged above.

A formal enforcement action under RCW 70.94.431 to further address the violations noted above may be issued by Ecology thirty (30) days following your receipt of this Notice of Violation. Ecology's obligation under RCW 70.94.332 to provide the person(s) receiving a Notice of Violation an opportunity to meet prior to the commencement of a penalty action is satisfied by the appearance requirement above.

Kaiser Aluminum & Chemical Corporation, Tacoma Reduction Plant
Notice of Violation No. DE 93-AQI057

Please contact Don Reif at (206)586-0503 if you have any questions about this Notice of Violation or wish to provide additional information about the alleged violations noted above prior to your appearance before Ecology.

Sincerely,

A handwritten signature in dark ink, appearing to read 'M.F. Palko', is written over the typed name.

M.F. Palko
Supervisor, Industrial Section
Department of Ecology

DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE COMPLIANCE BY)	
KAISER ALUMINUM AND CHEMICAL CORPORATION	)	NOTICE OF VIOLATION
TACOMA WORKS with Chapter 70.94 RCW and	)	AND ORDER
the Rules and Regulations of the	)	No. DE 90-I084
Department of Ecology	)	Third Amendment

To: Mr. J. M. Caddy
Works Manager
Kaiser Aluminum & Chemical Corp.
3400 Taylor Way
Tacoma, WA 98421

On December 21, 1990, the Department of Ecology issued Order No. DE 90-I084 to Kaiser Aluminum & Chemical Corporation's Tacoma Works. One of the requirements of that order was the submittal of an engineering report outlining a plan of action to reduce PM-10 emissions from the smelter. On August 30, 1991, Kaiser submitted said report and the Department of Ecology approved the plan of action. The order also required the department to amend said order to include emission limits and an implementation schedule for completing their plan of action. Those changes were accomplished through issuance of the First Amendment to Order No. DE 90-I084, dated November 14, 1991.

That original Order and subsequent amendments were prepared as part of the Department of Ecology's efforts to achieve attainment of the ambient air quality standard for PM-10 in the Tacoma Tideflats air shed, and to maintain continued compliance with that standard. The Department submitted said Order to the Environmental Protection Agency (EPA) as part of the State Implementation Plan (SIP). EPA has indicated that the SIP as submitted is inadequate in that the PM-10 limitation included in Order No. DE 90-I084 and the First Amendment thereto is not federally enforceable as stated.

In view of the foregoing and in accordance with RCW 70.94.331:

Order No. DE 90-I084, dated December 21, 1990, and the First Amendment thereto dated November 14, 1991, are hereby amended as follows:

1. Beginning on April 1, 1995, PM-10 emissions from Kaiser Aluminum's Tacoma Works potrooms and dry scrubbers, shall be limited to 415 kg/day, to be measured simultaneously from the Line 1/2 Method 14 system, the Line 4 Method 14 system, a representative Line 1 or Line 2 dry scrubber reactor (4 stacks), and a representative Line 4 dry scrubber reactor (4 stacks). Simultaneous sampling will be for 24 hours. PM-10 emissions testing shall be at the discretion of the Department of Ecology and shall be done in accordance with EPA Method 201A. After notification of the required testing, Kaiser and the department shall agree on a time frame for completing the test.

To calculate the total PM-10 emissions from the potrooms, it is assumed that the volumetric air flow rate and PM-10 concentration in the area of the roof monitor sampled by the EPA Method 14 system, is identical to the flow rate and

Mr. J. M. Caddy
Order No. DE 90-1084
Third Amendment

PM-10 concentration in the remainder of the roof monitor(s) in the operating potroom (or potroom group).

2. In addition, PM-10 emissions from the roof monitors shall be limited to 350 kg/day, to be measured from Kaiser's Line 1/2 Method 14 system and the Line 4 Method 14 system. Testing shall be required once per month for either 48 consecutive hours or two contiguous 24 hour samples, using EPA Method 201A. Sampling from the two Method 14 systems need not be simultaneous.

No other condition or requirement of Order No. 90-1084 and First Amendment is affected by this amendment.

Failure to comply with this Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the terms of this Order.

This order may be appealed. Your appeal must be filed with the Washington Pollution Control Hearings Board, P.O. Box 40903, Olympia, Washington, 98504-0903, within thirty days of receipt of this order. At the same time, your appeal must also be sent to the Department of Ecology c/o the Enforcement Officer, P.O. Box 47600, Olympia, Washington 98504-7600. Your appeal alone will not stay the effectiveness of this Order. Stay requests must be submitted in accordance with RCW 43.21B.320. These procedures are consistent with Ch. 43.21B RCW.

DATED this 24 day of Feb, 1995 at Olympia, Washington


Mike F. Palko
Supervisor, Industrial Section

90I084.3RD



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600 • (206) 407-6000 • TDD Only (Hearing Impaired) (206) 407-6006

MEMORANDUM

September 28, 1994

TO: Mike Palko

FROM: Ted Mix 

SUBJECT: Order approving Kaiser-Tacoma's PM-10 monitoring plan.

Attached is an Order for your signature approving a portion of Kaiser-Tacoma's overall monitoring plan. This approval is for the PM-10 portion only and is being done now because the Air Quality Program is trying to clean up loose details for the Tacoma SIP. Also, the new PM-10 emission limit became effective on January 1, 1994, and we need to approve some methodology for insuring compliance.

CC: Eric Oie
Doug Schneider

DEPARTMENT OF ECOLOGY

IN THE MATTER OF PENALTY)
ASSESSMENT AGAINST)
KAISER ALUMINUM & CHEMICAL)
CORPORATION, TACOMA WORKS)

NOTICE OF PENALTY
INCURRED AND DUE
Docket No. 95AQ-I030

To: Mr. J. M. Caddy
Kaiser Aluminum & Chemical Corp.
3400 Taylor Way
Tacoma, WA 98421

Notice is given that the Department has assessed a penalty against you in the amount of \$9800 under the provisions of Ch. 70.94 RCW.

The penalty is based on the following Department findings:

During the month of February 1995, Kaiser Aluminum & Chemical Corporation's Tacoma Works violated the 15 pounds of particulate per ton of aluminum produced on a daily basis standard contained in WAC 173-415-030(2). Kaiser emitted 16.0 pounds of particulate per ton of aluminum produced.

The penalty is due and payable by you within thirty (30) days of your receipt of this Notice. Please send your penalty payment to: Department of Ecology c/o Fiscal Cashier, P.O. Box 5128, Lacey, Washington 98503-0210.

If you wish to contest this penalty, you have two options. You may file an Application for Relief from Penalty with the Department explaining why the Department should reduce or cancel the penalty. A form is enclosed for your convenience. It must be signed under oath before a notary public or other person authorized to take oaths.

If you choose to submit an Application for Relief from Penalty, you must do so within fifteen (15) days of your receipt of the Notice. Send your Application for Relief to: Ted Mix, Department of Ecology, P.O. Box 47600, Olympia Washington 98504-7600. At the same time send a copy to: Department of Ecology c/o Enforcement Officer, P.O. Box 47600, Olympia Washington 98504-7600. After reviewing your Application for Relief, the Department will notify you of its decision.

If you choose not to submit an Application for Relief but still wish to contest the penalty, you may file an appeal with the Pollution Control Hearings Board. Your appeal must be filed within thirty (30) days of your receipt of this Notice. Send your appeal to the: Pollution Control Hearings Board, P.O. Box 40903, Olympia Washington 98504-0903. At the same time, copies of your appeal must be sent to: Department of Ecology c/o Enforcement Officer, P.O. Box 47600, Olympia Washington 98504-7600; and Ted Mix, P.O. Box 47600, Olympia Washington 98504-7600. These procedures are consistent with Chapter 43.21B RCW and its implementing regulations.

DATED this 12th day of May, 1995 at Olympia, Washington.


M. F. Palko, Supervisor
Industrial Section
Central Programs

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE ASSESSMENT) APPLICATION FOR RELIEF
OF PENALTY AGAINST) FROM PENALTY
Kaiser Aluminum, Tacoma) No. DE 95AQ-I030

To: Enforcement Officer
State of Washington
Department of Ecology
Post Office Box 47600
Olympia, WA 98504-7600

Kaiser Aluminum, Tacoma has received your "NOTICE OF PENALTY INCURRED AND DUE" dated May 12, 1995 and number DE 95AQ-I030 which states that Kaiser Aluminum, Tacoma has been penalized \$9800.

I have read and understand RCW 9A.72.030 which prescribes penalties for making false statements. Included below are my reasons, made under oath and on behalf of Kaiser Aluminum, Tacoma for reduction or cancellation of Penalty No. DE 95AQ-I030:

(NOTE: If you need more space, please attach extra pages as necessary)

I swear that these statements are true, accurate and a complete description of the facts of this case.

By: _____

SUBSCRIBED AND SWORN to before this ____ day
of _____, 199____.

NOTARY PUBLIC in and for the State
of Washington.
My commission expires: _____

RCW 9A.72.030 Perjury in the second degree.

(1) A person is guilty of perjury in the second degree if, with intent to mislead a public servant in the performance of his duty, he makes a materially false statement, which he knows to be false under an oath required or authorized by law.

(2) Perjury in the second degree is a class C felony.
[1975 1st ex.s. c 260 sec. 9A.72.030]

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

IN THE MATTER OF PENALTY)
ASSESSMENT AGAINST)
KAISER ALUMINUM & CHEMICAL)
CORPORATION, TACOMA WORKS)

NOTICE OF PENALTY
INCURRED AND DUE
No. DE 97-AQI036

To: Mr. J.M. Caddy, Works Manager
Kaiser Aluminum & Chemical Corporation
Tacoma Works
3400 Taylor Way
Tacoma, Washington 98421

Notice is given that the Department has assessed a penalty against you in the amount of \$3,000.

The penalty is based on the following Department findings:

Based on information gathered by Ecology, Kaiser Aluminum & Chemical Corporation, Tacoma Works, violated WAC 173-415-030(6), *Operation and maintenance*, on January 29, 1997 and again on February 7, 1997 when it failed to maintain an affected facility in a manner consistent with good air pollution control practice.

On January 29, an Ecology air inspector noticed one side shield missing on one of four prototype prebake pots in Line II. Additionally, on February 7, 1997, an Ecology inspector found three aluminum smelting pots on Line IV, specifically pots #140, 143, and 145, each with one fully opened side door, for a period of at least several minutes.

This penalty follows Notice of Violation No. DE 97-AQI014, issued February 21, 1997, for the violations listed above.

The penalty is due and payable by you within thirty (30) days of your receipt of this Notice. Please send your penalty payment to: Department of Ecology, Cashiering Section, P.O. Box 47615, Olympia, Washington 98504-7615.

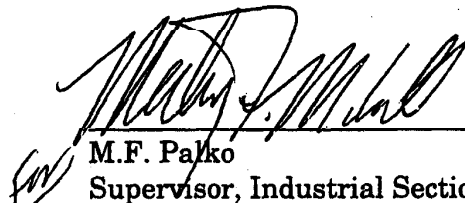
Kaiser Aluminum, Tacoma Works
Penalty No. DE 97-AQI036

If you wish to contest this penalty, you have two options. You may file an Application for Relief from Penalty with the Department explaining why the Department should reduce or cancel the penalty. A form is enclosed for your convenience. It must be signed under oath before a notary public or other person authorized to take oaths.

If you choose to submit an Application for Relief from Penalty, you must do so within fifteen (15) days of your receipt of this Notice. Send your Application for Relief to: "Department of Ecology c/o M.F. Palko, Industrial Section, P.O. Box 47706, Olympia, WA 98504-7706. After reviewing your Application for Relief, the Department will notify you of its decision.

If you choose not to submit an Application for Relief but still wish to contest the penalty, you may file an appeal with the Pollution Control Hearings Board. Your appeal must be filed within thirty (30) days of your receipt of this Notice. Send your appeal to: The Pollution Control Hearings Board, P.O. Box 40903, Olympia, Washington 98504-0903. At the same time, a copy of your appeal must be sent to: Department of Ecology c/o M.F. Palko, P.O. Box 47706, Olympia, Washington 98504-7706. These procedures are consistent with Chapter 43.21B RCW.

DATED this 11th day of August, 1997 at Olympia, Washington.



M.F. Palko
Supervisor, Industrial Section

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE ASSESSMENT) APPLICATION FOR RELIEF
OF PENALTY AGAINST) FROM PENALTY
Kaiser Aluminum & Chemical Corporation) No. DE 97-AQI036

To: Enforcement Officer
State of Washington
Department of Ecology
Post Office Box 47600
Olympia, WA 98504-7600

Kaiser Aluminum & Chemical Corporation has received your "NOTICE OF PENALTY INCURRED AND DUE" dated August 11, 1997 and number DE 97-AQI036 which states that Kaiser Aluminum & Chemical Corporation has been penalized \$3,000.

I have read and understand RCW 9A.72.030 which prescribes penalties for making false statements. Included below are my reasons, made under oath and on behalf of Kaiser Aluminum & Chemical Corporation for reduction or cancellation of Penalty No. DE 97-AQI036:

(NOTE: If you need more space, please attach extra pages as necessary)

I swear that these statements are true, accurate and a complete description of the facts of this case.

By: _____

SUBSCRIBED AND SWORN to before this ____ day
of _____, 199____.

NOTARY PUBLIC in and for the State
of Washington.
My commission expires: _____

RCW 9A.72.030 Perjury in the second degree.

(1) A person is guilty of perjury in the second degree if, with intent to mislead a public servant in the performance of his duty, he makes a materially false statement, which he knows to be false under an oath required or authorized by law.

(2) Perjury in the second degree is a class C felony.
[1975 1st ex.s. c 260 sec. 9A.72.030]



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

February 5, 1999

CERTIFIED MAIL

Z 183 862 603

Mr. J.M. Caddy, Works Manager
Kaiser Aluminum & Chemical Corporation
Tacoma Works
3400 Taylor Way
Tacoma, Washington 98421

Subject: Notice of Violation of the Washington Clean Air Act (Ch. 70.94 RCW),
Nu. DE 99AQ-I004

Dear Mr. Caddy:

Pursuant to RCW 70.94.332, Notice is given, based on information gathered by Ecology, that Kaiser Aluminum & Chemical Corporation, Tacoma Works, has violated WAC 173-415-030(2) for December 1998 when it exceeded the standard of 15 pounds of particulate emissions per ton of aluminum produced. For the month of December 1998, Kaiser reported particulate emissions of 18 pounds per ton of aluminum produced.

A penalty action under RCW 70.94.431 to further address the violation noted above may be issued by Ecology thirty (30) days following your receipt of this Notice of Violation.

If you wish to meet with Ecology prior to the commencement of a penalty action under RCW 70.94.431, please contact Don Reif at 360-407-6945 at your earliest convenience but not later than 30 days following your receipt of this Notice of Violation. Also, please contact Don Reif if you have any questions about this Notice of Violation or wish to provide additional information concerning the violations noted above.

Sincerely,

Carol Kraege
Industrial Section Manager
SWFAP

\\kac\pmviol.nov





STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

April 6, 1999

CERTIFIED MAIL

P 583 949 210

Mr. J.M. Caddy, Works Manager
Kaiser Aluminum & Chemical Corporation
Tacoma Works
3400 Taylor Way
Tacoma, Washington 98421-4396

Subject: Notice of Violation of the Washington Clean Air Act (Ch. 70.94 RCW),
No. DE 99AQ-I011

Dear Mr. Caddy:

Pursuant to RCW 70.94.332, Notice is given, based on information gathered by Ecology during a site visit on March 9, 1999, that Kaiser Aluminum & Chemical Corporation, Tacoma Works, violated the following regulations:

WAC 173-400-040(3)(a), Fugitive Emissions:

- A. Kaiser failed to take reasonable precautions to prevent the release of air contaminants when dumping the contents of a wooden box, via forklift, into a rolloff waste container, near the northeast corner of Building #3. Much of the dust was lost to the environment during the transfer into the waste container;
- B. Kaiser failed to take reasonable precautions to prevent the release of air contaminants from the alumina transfer operation above Line 4 (Air Operating Permit Application emission point #3-11). Dust was observed blowing out of the transfer building;
- C. Kaiser failed to take reasonable precautions to prevent the release of air contaminants from a vacuum cleaning operation in the paste plant (Air Operating Permit Application emission point #2-5); dust was observed in the exhaust air at the discharge point on the northeast side of the paste plant; and
- D. Kaiser failed to take reasonable precautions to prevent the release of air contaminants from the demister at the rod building mill (Air Operating Permit Application emission point #4-6); a bluish haze was visible from this stack, after dissipation of the steam plume.

In addition, Kaiser also violated the following:

Order No. DE 98-AQI020(2), Five percent opacity limit:

Kaiser violated the opacity limitation of the demister at the rod mill (Air Operating Permit Application emission point #4-6) by allowing opacity to exceed five percent, after dissipation of the steam plume.

A penalty action under RCW 70.94.431 to further address the violation noted above may be issued by Ecology thirty (30) days following your receipt of this Notice of Violation.

If you wish to meet with Ecology prior to the commencement of a penalty action under RCW 70.94.431, please contact Don Reif at 360-407-6945 at your earliest convenience but not later than 30 days following your receipt of this Notice of Violation. Also, please contact Don Reif if you have any questions about this Notice of Violation or wish to provide additional information concerning the violations noted above.

Sincerely,



Carol Kraege
Industrial Section Manager
Solid Waste & Financial Assistance Program

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

IN THE MATTER OF PENALTY ASSESSMENT)	NOTICE OF PENALTY
AGAINST KAISER ALUMINUM & CHEMICAL)	INCURRED AND DUE
CORPORATION, TACOMA WORKS)	No. DE 99AQ-I010

To: Mr. J.M. Caddy, Works Manager
Kaiser Aluminum & Chemical Corporation
Tacoma Works
3400 Taylor Way
Tacoma, Washington 98421

Dear Mr. Caddy:

Notice is given that the Department has assessed a penalty against you in the amount of \$37,200. The penalty is based on the following Department findings:

For the month of December 1998, Kaiser Aluminum & Chemical Corporation, Tacoma Works, released an average of 18.0 pounds of particulate air emissions per ton of aluminum produced. This is a violation of the 15 pound per ton standard in WAC 173-415-030(2).

The penalty is due and payable by you within thirty (30) days of your receipt of this Notice. Please send your penalty payment to: Department of Ecology c/o Fiscal Cashier, P.O. Box 5128, Lacey, Washington 98509-5128.

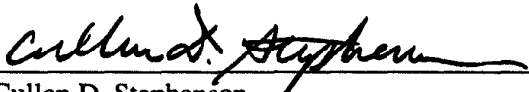
If you wish to contest this penalty, you have two options. You may file an Application for Relief from Penalty with the Department explaining why the Department should reduce or cancel the penalty. A form is enclosed for your convenience. It must be signed under oath before a notary public or other person authorized to take oaths.

If you choose to submit an Application for Relief from Penalty, you must do so within fifteen (15) days of your receipt of this Notice. Send your Application for Relief to: "Department of Ecology c/o Carol Kraege, Industrial Section Manager, P.O. Box 47706, Olympia, WA 98504-7706." After reviewing your Application for Relief, the Department will notify you of its decision.

Kaiser Aluminum, Tacoma Works
Penalty No. DE 99AQ-I010

If you choose not to submit an Application for Relief but still wish to contest the penalty, you may file an appeal with the Pollution Control Hearings Board. Your appeal must be filed within thirty (30) days of your receipt of this Notice. Send your appeal to: The Pollution Control Hearings Board, P.O. Box 40903, Olympia, Washington 98504-0903. At the same time, a copy of your appeal must be sent to: Department of Ecology c/o Enforcement Officer, P.O. Box 47600, Olympia, Washington 98504-7600. These procedures are consistent with Chapter 43.21B RCW.

DATED this 6th day of April 1999 at Olympia, WA.


Cullen D. Stephenson
Program Manager
Solid Waste and Financial Assistance Program

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE ASSESSMENT) APPLICATION FOR RELIEF
OF PENALTY AGAINST) FROM PENALTY
Kaiser Aluminum & Chemical Corp.) No. DE 99AQ-I010
Tacoma

To: State of Washington
Department of Ecology
Post Office Box 47600
Olympia, WA 98504-7600

Kaiser Aluminum & Chemical Corp. has received your "NOTICE OF PENALTY INCURRED AND DUE" dated April 6, 1999 and number DE 99AQ-I010, which states that Kaiser Aluminum & Chemical Corp., has been penalized \$37,200. I have read and understand RCW 9A.72.030, which prescribes penalties for making false statements. Included below are my reasons, made under oath and on behalf of Kaiser Aluminum & Chemical Corp. for reduction or cancellation of Penalty No. DE 99AQ-I010:

(NOTE: If you need more space, please attach extra pages as necessary)

I swear that these statements are true, accurate and a complete description of the facts of this case.

By: _____

SUBSCRIBED AND SWORN to before this ____ day
of _____, 199____.

NOTARY PUBLIC in and for the State
of Washington.

My commission expires: _____



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

April 12, 1999

CERTIFIED MAIL

P 583 949 211

Mr. Robin R. Buller, Works Manager
Kaiser Aluminum & Chemical Corporation
Tacoma Works
3400 Taylor Way
Tacoma, Washington 98421

Subject: Notice of Violation of the Washington Clean Air Act (Ch. 70.94 RCW),
No. DE 99AQ-I014

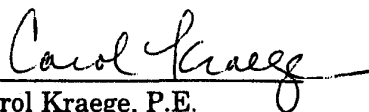
Dear Mr. Buller:

Pursuant to RCW 70.94.332, Notice is given, based on information gathered by Ecology, that Kaiser Aluminum & Chemical Corporation, Tacoma Works, has violated WAC 173-415-030(2) for February 1999 when it exceeded the standard of 15 pounds of particulate emissions per ton of aluminum produced. For the month of February 1999, Kaiser reported particulate emissions of 17.9 pounds per ton of aluminum produced.

A penalty action under RCW 70.94.431 to further address the violation noted above may be issued by Ecology thirty (30) days following your receipt of this Notice of Violation.

If you wish to meet with Ecology prior to the commencement of a penalty action under RCW 70.94.431, please contact Don Reif at 360-407-6945 at your earliest convenience but not later than 30 days following your receipt of this Notice of Violation. Also, please contact Don Reif if you have any questions about this Notice of Violation or wish to provide additional information concerning the violations noted above.

Sincerely,


Carol Kraege, P.E.
Industrial Section Manager
SWFAP

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

IN THE MATTER OF PENALTY ASSESSMENT)
AGAINST KAISER ALUMINUM & CHEMICAL)
CORPORATION, TACOMA WORKS)

NOTICE OF PENALTY
INCURRED AND DUE
No. DE 99AQ-I015

To: Mr. Robin R. Buller, Works Manager
Kaiser Aluminum & Chemical Corporation
Tacoma Works
3400 Taylor Way
Tacoma, Washington 98421

Dear Mr. Buller:

Notice is given that the Department has assessed a penalty against you in the amount of \$48,048. The penalty is based on the following Department findings:

For the month of February 1999, Kaiser Aluminum & Chemical Corporation, Tacoma Works, released an average of 17.9 pounds of particulate air emissions per ton of aluminum produced. This is a violation of the 15 pound per ton standard in WAC 173-415-030(2).

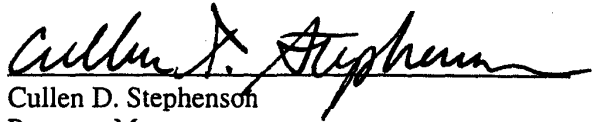
The penalty is due and payable by you within thirty (30) days of your receipt of this Notice. Please send your penalty payment to: Department of Ecology c/o Fiscal Cashier, P.O. Box 5128, Lacey, Washington 98509-5128.

If you wish to contest this penalty, you have two options. You may file an Application for Relief from Penalty with the Department explaining why the Department should reduce or cancel the penalty. A form is enclosed for your convenience. It must be signed under oath before a notary public or other person authorized to take oaths.

If you choose to submit an Application for Relief from Penalty, you must do so within fifteen (15) days of your receipt of this Notice. Send your Application for Relief to: "Department of Ecology c/o Carol Kraege, Industrial Section Manager, P.O. Box 47706, Olympia, WA 98504-7706." After reviewing your Application for Relief, the Department will notify you of its decision.

If you choose not to submit an Application for Relief but still wish to contest the penalty, you may file an appeal with the Pollution Control Hearings Board. Your appeal must be filed within thirty (30) days of your receipt of this Notice. Send your appeal to: The Pollution Control Hearings Board, P.O. Box 40903, Olympia, Washington 98504-0903. At the same time, a copy of your appeal must be sent to: Department of Ecology c/o Enforcement Officer, P.O. Box 47600, Olympia, Washington 98504-7600. These procedures are consistent with Chapter 43.21B RCW.

DATED this 9th day of August 1999 at Olympia, WA.


Cullen D. Stephenson
Program Manager
Solid Waste and Financial Assistance Program



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

August 12, 1999

CERTIFIED MAIL

Z 183 862 856

Mr. Robin R. Buller, Works Manager
Kaiser Aluminum & Chemical Corporation
Tacoma Works
3400 Taylor Way
Tacoma, Washington 98421-4396

Subject: Notice of Violation of the Washington Clean Air Act (Ch. 70.94 RCW),
No. DE 99AQ-I044

Dear Mr. Buller:

Pursuant to RCW 70.94.332, Notice is given, based on information gathered by Ecology through public complaints and a site visit on July 29, 1999, that Kaiser Aluminum & Chemical Corporation, Tacoma Works, violated the following regulations:

1. *WAC 173-400-040(1) & WAC 173-415-030(6), Visible Emissions.* Kaiser violated the opacity limit by allowing more than twenty percent opacity at dry scrubber Unit 15 Stack A on the afternoon of July 29, 1999.
2. *WAC 173-400-040(2), Fallout.* Kaiser allowed fallout of particulate emissions from dry scrubber Unit 15 to be deposited on neighboring property in sufficient quantity to interfere unreasonably with the use and enjoyment of that property, for a period of at least four days—July 26 through July 29, 1999.
3. *WAC 173-415-030(6), Operation and Maintenance.* Kaiser failed to operate and maintain dry scrubber Unit 15 in a manner consistent with good air pollution control practice, for a period of at least four days—July 26 through July 29, 1999.




Kaiser Tacoma
NOV No. DE 99AQ-I044
Page 2 of 2

4. *WAC 173-400-040(3a) & WAC 173-415-030(4), Fugitive Emissions.* Kaiser failed to take reasonable precautions and employ RACT to prevent fugitive emissions, for a period of at least four days—July 26 through July 29, 1999.

A penalty action under RCW 70.94.431 to further address the violation noted above may be issued by Ecology thirty (30) days following your receipt of this Notice of Violation.

If you wish to meet with Ecology prior to the commencement of a penalty action under RCW 70.94.431, please contact Don Reif at 360-407-6945 at your earliest convenience but not later than 30 days following your receipt of this Notice of Violation. Also, please contact Don Reif if you have any questions about this Notice of Violation or wish to provide additional information concerning the violations noted above.

Sincerely,


Carol Kraege, P.E.
Industrial Section Manager
Solid Waste & Financial Assistance Program

**BEFORE THE POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON**

KAISER ALUMINUM & CHEMICAL CORPORATION,)	
)	
Appellant,	)	PCHB 99-121 & 135
)	
v.	)	FINAL FINDINGS OF FACT,
	)	CONCLUSIONS OF LAW AND
STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY,	)	ORDER
)	
Respondent.)	

Kaiser Aluminum & Chemical Corporation. ("Kaiser") appealed the reasonableness of two civil penalties. imposed by the Department of Ecology ("Ecology"), for violation of a state-wide emission standard for aluminum smelters. The Pollution Control Hearings Board ("board") held the hearing in its hearing room in Lacey, Washington, on March 17 and April 26, 2000.

Matthew Cohen, of Heller Ehrman White & McAuliffe, represented Kaiser. Maia Bellon and Leslie Seffern, Assistant Attorneys General, represented Ecology. Robert V. Jensen, presiding, James A. Tupper, Jr., and Ann Daley, Chair, comprised the board. Yvonne Gillette, court reporter, affiliated with Gene Barker & Associates of Olympia recorded the proceedings.

The board heard sworn testimony, reviewed exhibits and heard closing arguments.

DISCUSSION

Ecology fined Kaiser a total of \$85,248 for violating the primary aluminum plant statewide standard for emission of particulates at its plant in Tacoma, in the months of December 1998 and February 1999. The 15-pounds per ton per day is a standard designed to protect the public interest and the welfare of the citizens of the state. It has been in existence for approximately 20 years. The Tacoma plant has operated close to the limit numerous times during the last ten years. Prior to December 1998, Kaiser had exceeded that limit three times. The exceedences of December and February, at 18 and 17.9 tons respectively, were the highest in 10 years for the plant. In addition, Kaiser's Mead plant has violated the standard six times since 1989.

Kaiser acknowledges the strike at the Tacoma plant does not excuse its violation of the standard. However, it argues a lesser penalty of \$24,000 would be reasonable. We are convinced otherwise. Ecology's penalty assessments are reasonable under the circumstances. It is apparent previous civil penalties against Kaiser for violating this standard have not had the desired deterrent effect. These penalties are justified to ensure Kaiser does not treat them simply as another cost of doing business. While Ecology did not show any specific adverse health effects from these violations, these violations increase the risk to the public health, because the finer particulates, which are exactly the ones emitted here, are those which are most dangerous to the human respiratory system. The fact Kaiser happened to have reduced production during these violations, which meant it did not increase the volume of pollutants into the air, is irrelevant, because the standard is designed to apply at a constant rate, regardless of the rate of production. In other words, when a plant reduces its production, under the standard, it must also reduce its pollutants. We affirm the penalty.

FINDINGS OF FACT

Kaiser's aluminum smelter in Tacoma is of the Soderburg type. It utilizes a dry aluminum scrubber. This type of smelter creates dustier, finer and lighter particulate matter ("PM") emission than the more common pre-bake smelter type. The finer particulates are more toxic than the larger ones, because they find their way more readily into the lungs, where they may induce respiratory ailments, such as chronic bronchitis and asthma. Polycyclic aromatic hydrocarbons ("PAH's") are constituents of polycyclic organic matter ("POM"), which in turn is a constituent of these particulates. Persistent biocumulative toxics ("PBT's") are also constituents of PM. These substances contain elements that are carcinogenic, persistent and biocumulative in the environment. Science has not been able to quantify a threshold limit for adverse health effects from these fine particles.

II

Ecology has enforced a statewide daily limit for particulate emissions in primary aluminum smelters of 15 pounds per ton of aluminum produced, since at least 1980. This standard is intended to protect the public interest and the welfare of the citizens of the state. Kaiser's Tacoma Plant has come close to exceeding this limit numerous times in the last ten years. During the last decade it has violated the limit five times.

III

Approximately 90 percent of Kaiser's emissions at the plant are emitted from the pot room roofs. These emissions are a result of the opening and closing of the pot doors.

IV

Kaiser was aware of the potential for a strike, prior to expiration of the five-year collective bargaining contract with its workers. Negotiations which had begun in August 1998, broke down, leading to a strike called by the workers on September 30, 1998. Kaiser brought in 300 new employees on the eve of the strike. The turnover at the plant was very high at the beginning of the strike. In October, the rate was approximately 140 percent. These workers tended to be inexperienced and needed more training. Kaiser also brought in supervisors, the bulk of whom were retirees. These supervisors, during the first two months of the strike were largely responsible for operating the pots. As the strike progressed, Kaiser raised the wages for new workers. This in turn lowered the turnover rate, so by January 1999, it had dropped to less than 30 percent. In late November and December, Kaiser began to move people back from 12-hour days to normal shift times, with one day off. Beginning in mid-November, Kaiser started relieving supervisors of operation of the pots. By January, the employees were generally entitled to the normal two days off.

V

Kaiser was aware the use of inexperienced workers to operate the pots would increase the average time the pot doors were open, and consequently the amount of PM emissions. An experienced worker would be able to make a crust breaker run in about 15 minutes, whereas an inexperienced worker would accomplish the same task in about 45 minutes. The latter worker therefore would leave the doors open about three times as long as the former, achieving the same task.

VI

In January 1999, Kaiser informed Ecology it had experienced particulate emissions of 18 pounds per ton per day, based on 9 days of measurement in December 1998.^[1] Kaiser was under the limit on only one of these days. This 18-pound figure exceeds the standard by three pounds per day. This is the highest recorded emission Kaiser had reported for the Tacoma Plant, since January 1990, when Kaiser

reported a 19.4-pounds per ton emission.^[2]

VII

Kaiser exceeded the PM standard at its Mead Plant in January 1999, reporting emissions of 15.4-pounds per ton per day.

VIII

On March 30, 1999 Kaiser reported to Ecology the company again exceeded the particulate standard in February 1999, by emitting 17.9-pounds per ton per day. Kaiser took 8 samples at the roof monitors. on five different days. Seven of the eight samples exceeded the 15-pounds per ton per day limit.

IX

Ecology issued separate civil penalties to Kaiser for the above three exceedences.³ The agency, on April 6, 1999, assessed Civil Penalty No. DE 99AQ-I010 in the amount of \$37,200, for the December emissions at Tacoma. It fined Kaiser \$48,048 on August 9, 1999 for the February exceedences (Civil Penalty No. DE 99AQ-I015).

X

Kaiser, on April 21st, submitted to Ecology an Application for Relief from Penalty No. DE 99AQ-I010. Kaiser advised Ecology of the strike and the company's shutdown of one of its three pot lines at that time. The company contended the penalty was excessive because Kaiser had not violated the 15-pound per ton per day standard within the past two years. Kaiser also contended the penalty was excessive because the total emissions of PM, during December 1998, were under the average monthly emissions from April through September 1998.

XI

On July 8th, Ecology denied the requested relief on the ground Kaiser had not demonstrated extraordinary circumstances justifying such relief. Don Reif, the inspector who recommended the penalty, concluded the two-year period alluded to by Kaiser may have referred to Ecology's previous enforcement guidance, which suggested escalation of penalties for violations occurring within a two-year period. He observed Ecology's "current guidance has a different matrix and addresses repeat violations in a different manner."

XII

Kaiser did not apply for relief from Penalty No. DE 99 AQ-I015. However, the company did send a letter dated May 14, 1999 to Ecology, responding to Ecology's Notice of Violation No. DE 99AQ-I014, which was the precursor to the above penalty. Kaiser there explained it was continuing to install pleated bags in the scrubbers, which would reduce PM emissions. Additionally, Kaiser wrote it was testing and installing newly designed pot door seals to meet maximum available control technology ("MACT") standards and control emissions.

XIII

Kaiser emitted 14,910 excess pounds of particulate from its Tacoma Plant in December 1998, and 12,590 excess pounds in February 1999, from what it would have emitted by being under the 15-pounds per ton per day limit. From January 1992 to November 1999, the plant has increased its total fluoride emissions from approximately 1.7-pounds per ton to 3-pounds per ton. Emissions of gaseous fluoride have increased from .6-pounds per ton to 1.4 pounds per ton, during the same period. Hydrogen fluoride emissions have

shown a similar increase during this period. The average PM emissions increased from 13.8-pounds per ton in 1998 to 14.9-pounds per ton in 1999. All of these increases are indicative of relaxed operation and maintenance of the plant.

XIV

Ecology applied its enforcement guidelines to these penalties. It considered the Clean Air Act limitation of \$10,000 per day for each violation. Applying this standard for 31 days in December would have resulted in a penalty of \$310,000. This standard would have yielded a \$280,000 civil penalty for the 28 days in February 1999. Ecology reviewed the penalties against its gravity matrix. The December exceedences would have yielded a gravity component of \$4,000. Had Ecology applied this component to the December exceedences, the penalty would have been \$124,000. Ecology applied the matrix to the February exceedences and arrived at a gravity component of \$7,000. This would have yielded a penalty of \$196,000 for the 28 days of February.

XV

Ecology ultimately determined to apply a penalty of \$1,200 per day for the December violations. The resulting civil penalty is \$37,200. This is in excess of the highest civil penalty of \$800 per day Ecology has assessed against Kaiser for violation of the 15-pound per ton daily limit (at the Mead Plant) and \$350 per day for violation of that standard at the Tacoma Plant. Ecology increased the daily penalty for the February violation to \$1,716 per day, due to the repeat offense. The resulting penalty is \$48,048. The two penalties together total \$85,248.

XVI

Kaiser timely appealed these two civil penalties. The board consolidated these appeals into this case.

XVII

Any conclusion of law deemed to be a finding of fact is adopted as such. Based on these findings, the court makes the following:

CONCLUSIONS OF LAW

I

The board has jurisdiction over this matter and the parties, under RCW 43.21B and RCW 70.94.221.

II

Kaiser admits the violation, but challenges the reasonableness of the penalties.

III

Ecology asserted, based on Weyerhaeuser v. Ecology, PCHB 94-240 (1995), appellant bears the burden of proof as to the reasonableness of a proposed penalty. This is a matter resolved by the board in M/V An Ping 6 v. Ecology, PCHB 94-118 (1995). There we wrote: "the board is convinced that it is inappropriate to place the burden of proof as to the reasonableness of a penalty on the appellant." M/V An Ping 6, Conclusion of Law IV, at 11.

IV

RCW 70.94.431(1) authorizes Ecology to issue a civil penalty, not to exceed \$10,000 per day, for each violation, against any person who violates RCW 70.94, or its implementing regulations.

V

The board considers three factors when it evaluates the reasonableness of a penalty. These are: (1) the nature of the violation; (2) the prior history of violations; and (3) the remedial actions taken by the penalized party. Taylor v. SWAPCA, PCHB 94-264 (1995). The

board has developed this standard over the years, drawing by analogy from the Water Pollution Control Act, at RCW 90.48.144(3), which declares "the penalty amount shall be set in consideration of the previous history of the violator and the severity of the violation's impact on public health and/or the environment in addition to other relevant factors."

VI

Ecology utilizes enforcement guidelines and a gravity matrix to arrive at a recommended penalty which considers the above factors. The board, because it has de novo review authority, is not bound by these guidelines, but does consider them as relevant in determining the reasonableness of the penalty.

VII

Kaiser argues the penalty should not be more than \$12,000 per incident. The company's rationale seems to be the penalty should not be substantially above Kaiser's previous penalty at its Tacoma Plant. That 1995 penalty, based on a per day average, was \$350 per day. Kaiser's proposal, as applied to the December violation would be about \$387 per day.

VIII

Ecology's penalties amount to \$1,200 and \$1,716 per day. We conclude the penalties are reasonable. They are substantially below the maximum penalties allowable by statute.

IX

Kaiser's excess emissions of PM are serious. The particles emitted by the Tacoma Plant are fine particles that pose a potential threat to human health. There is no amount of emissions of these substances that currently can be quantified as being safe. They contain carcinogenic substances, which are persistent and tend to accumulate in the environment.

X

Kaiser has known for years it operates close to the 15-pound per ton daily limit. Its failure to avert a strike does not excuse it from complying with the pollution laws designed to protect the public health. Kaiser has repeatedly violated this standard at both its Tacoma and Mead Plants. Ecology's penalties do not seem to have had a deterrent effect. Under these circumstances, it was entirely reasonable for Ecology to escalate the level of penalty.

XI

Ecology argues we should conclude, as a matter of law, Kaiser's violations are not remediable. The actual event, once it occurs, is of course not capable of being undone. The board may consider whether the penalized party has undertaken any efforts to avoid similar events in the future. Here, Kaiser avoided emission violations during the early part of the plant by hiring experienced, retired workers to operate the pots. The violations occurred shortly after the company removed those supervisors from that responsibility. The company made a conscious business decision to risk violating the State's daily PM standard for primary aluminum plants. It cannot now complain of these penalties for having made the wrong business decision, either to avert the strike, or to keep the experienced workers on the pots until the inexperienced workers were adequately trained. In this case, we are not convinced Kaiser has undertaken any long-term measures which will change its operations significantly, so it may avoid future such events. The company's emissions of total fluoride, gaseous fluoride and hydrogen fluoride continue to rise. These trends are indicative of poor operation and maintenance of the facility. It appears Kaiser has considered civil penalties as part of the cost of doing business. We are unable to conclude, based upon the record before us, Kaiser's current technology and operation and maintenance are sufficient to ensure the Plant will not continue to be a repeat offender of the PM standard.

XII

We affirm the civil penalties as reasonable, based upon the above considerations.

XIII

Any finding of fact which is deemed a conclusion of law is hereby adopted as such. From these conclusions, the board enters the following:

ORDER

Ecology's issuance of Civil Penalty No. DE 99AQ-I010, in the amount of \$37,200; and Civil Penalty No. DE 99AQ-I015, in the amount of \$48,048, are affirmed.

DONE this 17th day of May 2000.

POLLUTION CONTROL HEARINGS BOARD

ROBERT V. JENSEN, Presiding

ANN DALEY, Chair

JAMES A. TIPPER, JR., Member

P99-121F

^[1] Ecology allows the smelter to report the standard on a monthly basis, even though the standard is a daily one. Kaiser chose to make eight measurements during December, instead of the ordinary one measurement.

^[2] The only other prior higher particulate emission from Kaiser was an 18.2 pound per ton emission from the Mead Plant in October 1988.

^[3] The Mead Plant exceedence is not being litigated in this proceeding.

Ecology Home | Ecology News

Department of Ecology News Release

FOR IMMEDIATE RELEASE - Aug. 16, 1999

99-161

Contacts: Sandy Howard, Public Information Manager, (360) 407-6239

Tacoma aluminum smelter violates air quality standards again

OLYMPIA - The state Department of Ecology (Ecology) has fined Kaiser Aluminum & Chemical Corp. of Tacoma ~~\$48,048~~ for violating air-quality standards for the second time in three months.

The Tacoma aluminum smelter emitted an average of 17.9 pounds of particulate matter for each ton of aluminum it produced in February. The maximum emission allowed by state law is 15 pounds per ton.

Ecology fined Kaiser Tacoma \$37,200 for similar violations that occurred in December 1998.

The particulate matter contains polynuclear aromatic hydrocarbons (PAHs), a human carcinogen. PAHs are toxic, long-lasting substances that can build up in the food chain to levels that can be harmful to human and ecological health.

"This is an excessive violation of the 15-pound standard, and we continue to be disappointed in the performance of the plant," said Cullen Stephenson, manager of Ecology's solid-waste program. "They've had repeated violations of environmental requirements. This is another very serious violation."

Ecology inspections found the air pollution problems were caused by inadequate operation and maintenance of the facility's smelting process and related air-pollution-control equipment.

The Kaiser Aluminum plant in Mead, north of Spokane, also received an Ecology penalty last week. The Mead plant was fined \$58,000 for bypassing air-pollution-control equipment in its carbon-bake furnace.

FOR IMMEDIATE RELEASE

June 3, 1998

98-091

Contact: Sandy Howard Rudnick, Public Information Manager (360) 407-6239

Tacoma Smelter Penalized for Polluting Hylebos Waterway

OLYMPIA - An error during heavy snow last January has resulted in a **\$30,000** fine against the Kaiser Aluminum & Chemical Corporation of Tacoma.

The state Department of Ecology (Ecology) issued the penalty after Kaiser workers spread alumina -- a non-toxic, but extremely abrasive, sand-like substance -- on the snow-covered ground to improve traction for vehicles entering their potrooms. High rains in the following days washed the substance into Kaiser's wastewater lagoon and subsequently into Hylebos Waterway.

"Other Western Washington smelters are taking active steps to plan ahead for situations that could have harmful environmental consequences," said Jim Pendowski, manager of Ecology's solid-waste program. "We believe Kaiser can rise to the occasion and create contingency plans to avoid future situations that threaten Washington's precious natural resources."

Kaiser's readings, required by their Ecology wastewater permit, revealed 15 days of stormwater runoff that exceeded the daily maximum limit for total suspended solids, ranging from 109 to 178 percent above the daily limit. In addition, their monthly average was exceeded by 270 percent.

"In the coming weeks, we will be working with Kaiser to update their wastewater permit to provide upgrades that will short-circuit sources of pollution before, rather than after, the fact," Pendowski said.

Alumina can cause a threat to aquatic resources, primarily benthic (bottom dwelling) organisms. The incident compounds Hylebos Waterway's numerous historical problems with pollution.

[Return to Ecology's home page](http://www.ecy.wa.gov/news/1998news/98-091.html)
